

# Sporty Feet

Essential foot care advice for anyone playing sports



The Society of  
Chiropractors and  
Podiatrists

[www.feetforlife.org](http://www.feetforlife.org)

# Contents

<b>Introduction</b> .....	3
<b>Foot health tips for all sports</b>	
General advice .....	4
What if I have an injury .....	4
Children playing sports .....	5
Professor Pod .....	5
<b>Sports</b>	
Football .....	6
Cricket .....	8
Cycling .....	10
Dancing .....	12
Golf .....	14
Racquet Sports .....	16
Rugby .....	18
Running .....	20
Skiing .....	22
Walking .....	24
<b>Footwear Advice</b>	
General advice .....	26
A different sport, a different shoe .....	26
Socks .....	26
Blisters .....	27
<b>Further Information</b>	
What does a podiatrist do? .....	27
How to contact a podiatrist .....	27
Useful contacts .....	28
Contributor biographies .....	28



# Introduction



Feet have a rough time of it. They carry us the equivalent of five times around the earth in an average lifetime, yet we give them less attention than they deserve and, if we play sports on a regular basis, that just adds to the battering they get. Fear not though help is at hand. This guide has been written to give you general advice on how best to look after your sporty feet, children's sporty feet, specific advice on the 10 most popular sports, footwear advice, how to seek specialist advice and further information and links. More helpful information can also be found on the Society's website at: [www.feetforlife.org](http://www.feetforlife.org)

# Foot health tips for all sports

## Sport demands a lot of our feet, so we need to take extra care of them

Playing sport regularly is a great thing: it's enjoyable, good for our health, our mind and recommended by medical professionals everywhere. However exercise can have a distinctly unhealthy effect on our feet. When we run, our body weight is multiplied up to three times, with our feet bearing the brunt of this stress at every stride (over 1,000 strides per mile, per foot). An average-sized man will process 112 tons of weight through each limb per mile.

The demands made on your feet and lower limbs can lead to a range of injuries, including blisters, sprained ankles, torn ligaments, shin splints (leg pain), knee pain, lower back pain and other joint or muscle problems (see [www.feetforlife.org](http://www.feetforlife.org) for advice on these problems). Added to these are common complaints such as corns, callus and athlete's foot. Asking too much, too soon of your joints and muscles can lead to injury. Running style, poor footwear and even minor limb length differences can also contribute to injuries.

## So how do you look after your feet when playing sport?

As in all aspects of foot care, prevention is the key. You can look after your feet easily by following these simple rules:

- Condition yourself gradually with stretching exercises for fifteen to twenty minutes before starting any activity, and remember to warm down
- Wash your feet every day, and dry thoroughly especially between the toes
- Wear only good-quality, well-fitting socks



- Always use the correct shoe for each sport and surface
- Get in shape. Being overweight or out of shape places added stress on the feet

## What if I have an injury?

Rest is best for minor injuries. You can then gradually return to exercise when any pain or discomfort has gone. If there are any cuts, wash them and cover with a clean dressing. Leave blisters unopened, if possible. I.C.E. – ice, compression and elevation – helps with most minor sprains and strains. If the problem is more serious, or if you are in any doubt, it is best to



seek the help of a podiatrist. Podiatrists can treat a number of acute injuries, and can also help prevent injuries developing in the first place. For further information please see “What does a podiatrist do?” on page 27, and to find a podiatrist in your area please see “How to contact a podiatrist” on page 27.



## Children and Sports

As children take up a particular sport and become more active at school, foot and lower limb problems associated with unaccustomed exercise can occur. Growth, possible weight gain and increased exercise contrive to cause a wide range of painful foot and lower limb conditions. These complaints should always be taken seriously and a diagnosis made as soon as possible. Failure to recognise and treat these overuse symptoms can lead to long-term problems for the child and an inability to reach their true sporting potential. Most problems can be readily managed by your podiatrist (see page 27 to find one in your area) utilising a variety of methods. But the treatment may also require periods of rest and a change to everyday footwear and activity footwear. Often the problem can be solved with footwear advice alone. Always remember to wear the correct footwear for that particular sport.

Barefoot activities, ie karate, judo are good exercise for the foot but also cause problems due to the foot having a relatively lower heel from what is it is used to.



This puts strain on the arch of the foot and the back of the lower leg. Careful training and preparation are essential.

If a child indulges in any form of activity, injuries can occur and there will be aches and pains from time to time. Children are no different to adults in this respect but they tend to repair more quickly. Also, they tend not to rest when injured and need to be monitored carefully. Very young children may regard the problem as the norm and not complain. All aches and pains in children should be taken seriously and investigated professionally, particularly during periods of active growth.

### Further Reading

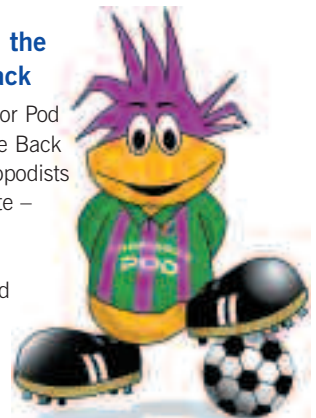
Looking out for Children's Feet – Free 28-page PDF booklet available from: [www.feetforlife.org](http://www.feetforlife.org)

### Professor Pod and the Boots that Bite Back

Read all about Professor Pod and the Boots that Bite Back on the Society of Chiropractors and Podiatrists' website – [www.feetforlife.org](http://www.feetforlife.org)

You can also download Professor Pod in his football strip and colour him in with your team's colours.

The best entry will win a prize. See [www.feetforlife.org](http://www.feetforlife.org) for more information.



# Football

By  
Lindsay A Fitzgerald

## How playing football impacts on the foot

Football can place a great deal of stress on the foot and the more you play, the higher the stress. There can be a lot of friction involved, particularly when playing on surfaces such as astroturf. A player often stops suddenly and twists and turns. Likewise, when playing on hard ground the studs can result in pressure to the sole of the foot.

Football boots can also be quite stressful on the feet, particularly as most players wear a tight fit for better ball control. It is not uncommon for a footballer to suffer with pressure points, corns, callus or ingrowing toenails as a result of football boots. This is particularly damaging for those who are still growing.

## Potential problems and when to seek the help of a podiatrist

We would advise anybody actively participating in football who starts to feel pain in the foot, ankle or heel to seek the advice of a podiatrist sooner rather than later. People tend to persevere with pain, thinking that it will go away. There is a big difference between muscular aches from a hard session and pain that reoccurs after every training session or game, or even pain that is gradually getting worse. In these situations, it is best to consult a podiatrist with a special interest in biomechanics and musculoskeletal problems.

Any signs of pressure such as redness, blisters, hard skin or extra bone developing (osteophytic formation) definitely needs assessing by a professional. Areas to check are around the back of the heel, the toes and the base of the big toe joint.

## Maintaining healthy feet for football

Prevention is always better than cure. Support your feet whenever you can, not only when playing but as much as possible. Toenails should always be kept to a good length, cut straight across and not too short – you would not want to miss an important game due to an ingrowing toenail.





Good foot hygiene is essential to prevent a number of foot problems such as bacterial, fungal or viral infection. These can appear minor but can result in complications leading to pain and even missed training sessions and matches.

Footballers often neglect their flexibility, which can be important in keeping a good posture, maintaining a wide range of motion at all joints and preventing injury. This is particularly important in those that are still growing. Teenagers can suffer from excruciating heel pain because they have extremely tight hamstrings or calves. Once this flexibility is increased with a stretching programme, their posture improves and the problem is resolved. Sometimes prescribed insoles/orthoses are also needed to support the feet.

Having good balance and awareness is essential for football. This can be improved by increasing the communication between the feet and the nervous system (brain). This is referred to as 'proprioception' and can be improved with the use of orthoses for those with flat feet.

### Equipment required

A good, well-fitting pair of football boots is essential. There shouldn't be any signs of pressure on the foot after a game or training session. A pair of flip flops is recommended if using communal changing areas and showers, as this can prevent picking up any infections that can cause unnecessary problems. It is strongly recommended that these are used for this purpose only.

Further information on page 26.

### Five top tips when playing football

1. Stretch, stretch, stretch!
2. Support your feet (good footwear).
3. Good foot hygiene.
4. Look after your nails.
5. Contact a podiatrist immediately if you have any concern. See page 27.

# Cricket

By  
Simone McConnie

## How playing cricket impacts on the feet

As with any sport involving running, repetitious actions can lead to stresses of all kinds. There are forces of high impact on the structures of the feet – the toes, ankles, muscles, ligaments, tendons and the bones that support the feet. These forces can be two to three times our body weight so it is easy to appreciate the damage that can be done. Other stresses may be a result of ill-fitting shoes and socks.

## Potential problems and when to seek the help of a podiatrist

### Lower back pain

Pain in the lower back may be an indication of improper gait during actions like bowling, or of structural limitations such as limb length discrepancies (one leg longer than the other).

### Pain in the toes

- Black and blue under the nail (subungual haematoma) may be a result of an inappropriate fitting shoe; it is not uncommon to cut a hole in the toe box area, but this is not recommended as it changes the mechanism/function of the shoe and may result in other problems
- Yellow/green nails: may occur naturally or if a nail is partially lifted during a game and, if untreated, can result in unwanted bacterial and fungal growth leading to a fungal nail infection
- Paraonychia: redness and swelling at the side of the toe mostly seen on big toes
- Ingrown toenails: redness and swelling at the side of the toes sometimes accompanied by discharges

## Pain in the bottom of the foot (arch area)

- Plantar fasciitis is very common. The pain can be mild to severe and is likened to a feeling of tearing under the skin in the arch while standing. It is usually noticeable in the mornings after rest, but sometimes it can be worse after a game or training session and may or may not involve discomfort in the heels.
- Retro calcaneal tendonitis is pain at the back of the heel area and may radiate up the back of the leg a little, but not as far up as the calf.







### **Pain in the heel**

Heel pain is sometimes accompanied by arch pain but can also occur in isolation. The pain is usually noted in the heel area on standing after rest and sometimes only noticed after playing. This can be as a result of over use, poor biomechanics or due to the equipment not functioning correctly or being too worn to function properly, such as a spike protruding in the sole of the shoe.

### **Pain to the side of the foot near the outside of the ankle**

This problem may be due to rubbing from inside the shoe, inappropriate shoe fitting or poor landing during the delivery of the ball while bowling.

### **Generalised problems**

Other problems affecting the foot can be related to hard skin on the soles of the feet called calluses, or corns and verrucae. These usually present with soreness over bony areas under the foot due to badly fitting footwear. It is important to remember that when areas of hard skin are identified, consultation with a podiatrist is essential as it can be easily misdiagnosed to the untrained eye. If it is a verruca the treatment is

different and needs immediate attention. Verrucas are caused by a virus that gets into the skin and causes a lesion looking like a corn. However, they are contagious and can be spread so be careful when using communal showers. Custom orthotics maybe required to assist with the management or treatment of some of these problems, consult a podiatrist for advice (see page 27 to find one in your area).

## **Five top tips**

Good foot care is essential to maintaining healthy feet for the game:

1. Change socks in between games to avoid the friction incurred by wet socks and bacterial accumulation.
2. Wash, dry and trim toenails regularly and use a light moisturising cream on your feet.
3. Make sure your foot wear is not too tight, you should be able to wiggle your toes.
4. Check inner soles regularly for any excess wear that can cause damage to feet.
5. Seek professional help for pain, structural anomalies or other symptoms sooner rather than later. See page 27.



# Cycling

## How cycling impacts on the foot

Cycling requires the entire lower body to function as a harmonious unit and bring sufficient force down on the bicycle pedal to move forward. This tremendous force begins in the hip joint and thigh muscles, and passes through the ball of the foot to the pedal. As long as the bones, muscles, and joints of the lower extremity are properly aligned with each other, there is an efficient and pain-free excursion of the pedal. Deviations from this alignment may eventually cause foot, ankle, lower leg, knee, thigh or hip pain.

## Potential problems and when to seek the help of a podiatrists

Every day, podiatrists treat cyclists who have sustained overuse injuries by pushing themselves beyond their limitations. Here are some of the most common cycling injuries and their causes.

As with all athletic injuries, pain that is persistent indicates a need to seek treatment from a podiatrist familiar with cycling injuries.

### Achilles Tendinitis

Irritation and inflammation of the tendon that attaches to the back of the heel bone can be caused by improper pedalling, seat height, lack of a proper warm-up or over training. This condition is usually seen in more experienced riders and can be treated with ice, rest, aspirin or other anti-inflammatory medications. Chronic pain or any swelling should be professionally evaluated.

### Knee Pain

Some intrinsic knee problems like swelling, clicking or popping should be immediately evaluated by a sports medicine specialist. Cartilage irritation or deterioration, usually under the kneecap, can be caused by a biomechanical

imbalance, improper saddle height or faulty foot positioning on the pedals.

### **Numbness**

Impingement of small nerve branches between the second and third or third and fourth toes can cause swelling that results in numbness, tingling, or burning, or sharp shooting pains into the toes. Wider shoes, or loosening toe straps or shoe laces can alleviate the problem. If the problem persists, try a clipless shoe system. Numbness or tingling with leg pain may represent a serious problem known as “acute compartment syndrome”, which requires immediate medical attention.

### **Sesamoiditis**

Sometimes known as the “ball bearings of the foot”, the sesamoids are two small bones found beneath the first metatarsal bones; the sesamoids can inflame or rupture under the stress of cycling. Sesamoiditis can be relieved with proper shoe selection and orthoses.

### **Shin Splints**

Pain to either side of the leg bone, caused by muscle or tendon inflammation. This may be related to a muscle imbalance between opposing muscle groups in the leg. It is commonly related to excessive foot pronation (collapsing arch). Proper stretching and corrective orthoses for pronation can help prevent shin splints.

### **Equipment required**

Besides selecting a bicycle that meets your specific needs, proper shoes are the most important piece of cycling equipment. Cycling shoes must have a

stable shank to efficiently transfer power from your feet to the pedals. The lack of shank support in sneakers allows the foot to collapse through the arch while pedalling, which may cause arch pain, tendon problems, or burning under the bottom of the foot. A rigid shank protects your feet from the stress of pedalling.

Select a shoe that's right for you among models designed for racing and mountain biking. For the casual rider without known foot problems, cross-training shoes provide the necessary support across the arch and instep in a shoe that can be used for other purposes. They also provide the heel lift that cycling shoes give. Combination cycling-hiking shoes meet the needs of the casual rider well and have become popular recently.

## **Cycling tips**

1. Carefully choose the shoes you will wear in cycling.
2. Make sure your bike fits you properly.
3. Warm up properly. Condition yourself safely in the off season.
4. To stop pain before it starts, podiatrists advise stretching the major muscle groups used in cycling - the gluteals, the quadriceps, calves and hamstrings - before and after getting on the bike. Riders should start slowly and work up to normal cadence (rate of pedalling).
5. Ensure the seat is at the proper height when knees are slightly flexed.



# Dancing

It is important for dancers to look after themselves in terms of their health and appearance. However, prime assets that are often overlooked are the feet.

It is vital for dancers to keep their feet in premium condition so they can perform to the best of their ability. Dancers' feet experience considerable wear and tear in comparison with the average person, due to long hours spent exercising, training and performing.

The constant pounding of your feet on the hard floor places immense stress not only on your feet, but also your legs and spine, as the feet absorb the full impact of the dance move.

## Common dancer foot ailments

Common foot problems amongst dancers include: Metatarsalgia, Plantar fasciitis, Shin splints, Achilles tendonitis, calluses and blisters.

Forefoot pain is very common and is due to the amount of moves that involve loading the forefoot

eg landing on the forefoot after a jump. This in most cases can be alleviated or avoided with elastic metatarsal bandages or a simple orthotic (insole). This type of device will unload the pressure at the forefoot.

Friction blisters are another big problem for dancers and in severe cases (especially with young dancers) can stop them dancing. These are caused by your skin rubbing against something - usually a poor fitting shoe. Most friction blisters are filled with clear fluid. It is best to leave most small blisters alone.

To minimise blisters, firstly ensure that your shoes fit correctly. This does not always prevent blisters, especially after a long dance session, but ill-fitting footwear is the most common reason for blisters. If the blisters persist try wearing two pairs of socks to ease friction against foot or use an anti-blisther foot cream before putting your socks on. This will make the skin more supple and able to resist friction. See page 27 for more information.



# Focus on Irish Dancing

By Robert James Hill

## How Irish Dancing impacts on the foot

In Irish Dancing feet have a great deal of stress placed on them, more so than in other dance sports. The majority of the body weight is placed through the ball of the foot and the big toe. The tendons and muscles on the bottom of the foot which support of the arch also get frequently strained. As is the nature of the dancing, these stresses are often repetitive and traumatising.

## Potential problems and symptoms to look out for and when best to seek the help of a podiatrist

Four main areas subject to stress are:

- Soft tissue: such injuries which are common are bruises, blisters, strains of the muscles (plantar fasciitis).
- Nerve: common injuries are pain shooting into the middle three toes (Morton's neuroma), damaged nerves and numbness (neuropathy).
- Bone: slight breaks of the bone are called stress fractures.
- Nail: Bruising of the nail and ingrowing nails are common.



## Maintaining healthy feet for Irish Dancing

- Use of emollient (foot) cream enables the skin to retain moisture.
- Stretching of the foot and ankle can help keep the foot flexible. One such stretch is done using a tennis ball and rolling it backwards and forwards under the arch. Calf stretches are also very useful.
- Cut nails short so they don't impact on the front of the dancing shoe, causing damage.

## Equipment required

- Strapping tape can help support the foot if injured.
- Nail cutters are useful if the nail is damaged
- Ice on standby for swelling.

## Five top tips when Irish Dancing

1. Massaging arches in between sets.
2. Stretching in between sets as mentioned above.
3. Joint mobilisation, grasping hold of joints and rotating them (ankle and big toe).
4. Shoe padding, protection and orthotic correction to aid the support of the foot.
5. Correctly fitting shoes.

# Golf

## How playing golf impacts on the foot

Any golf professional will tell you that problems with the feet, even a painful corn or callus, can impede timing and balance to the point where it affects the scorecard at the end of the day.

The torque of a golf swing can strain muscles in the legs, abdomen and back. The fact that the game is usually played on hilly terrain increases these forces, and can lead to injury.

However, a full round of golf adds up to a four or five-mile workout that can reduce stress and improve cardiovascular health.

## Potential problems and when to seek the help of a podiatrist

If a round of golf is painful on the feet, first assess the quality of your shoes. Any time pain is not adequately resolved with good, stable golf shoes and is present for more than two or three consecutive rounds, it's time to visit a podiatrist. They can diagnose and treat any problems and help make your feet an asset, not a liability, to your golf game.



If biomechanical imbalances are present, these existing stresses will overload certain structures, and predispose the golfer to overuse of muscles and strain on ligaments and tendons. Orthoses will equalise the weight load on the lower extremity and in essence rest the overused muscle.

Other problems, such as tendinitis, capsulitis, and ligament sprains and pulls can also keep a golf enthusiast in the clubhouse. Improper shoes can bring on blisters, neuromas (inflamed nerve endings) and other pains in the feet. Podiatrists see these problems daily and can treat them conservatively to allow for a quick return to the sport.

When injured, participation is no substitute for rehabilitation. Injured body parts must be thoroughly treated and rehabilitated to meet the full demands of golf or any other sport. If you are injured, your return should be gradual. As much as you may want to get back to your game, take it slowly.

## Orthoses: preventing pain, improving game

For the foot that is not able to function normally due to biomechanical conditions such as excessive pronation (rolling in) or supination (rolling out), a state of optimal biomechanics can be achieved through the use of orthoses, custom shoe inserts that can be prescribed by a podiatrist. Orthoses not only allow the feet to function as they ought to but can alleviate the predisposition to injury brought on by biomechanical imbalances.



If biomechanical problems are present in your swing, they will invariably cause symptoms when walking the course as well. Addressing biomechanical problems in walking may therefore result in the secondary benefit of an improved swing through proper foot function.

### Equipment required

Once driven by fashion, golf shoes were wing-tip oxfords with spikes. Today, shoes are constructed using basic principles of athletic footwear. Some even incorporate advanced technological innovations such as graphite shank reinforcements, which keep them light and add strength.

Don't wear anything on your feet that wouldn't be comfortable if you were taking a good long walk. Make sure shoes fit well in the store before purchasing them. It's best to shop for them in the afternoon when the feet are slightly swollen. Try on shoes with the same socks you'll wear on the course. Tie both left and right shoes tightly and walk around your store or pro shop for a few minutes before deciding on a make and model.

### Maintaining healthy feet for golf

Proper warm-up and stretching exercises specific to golf can help in injury prevention. A sports podiatrist can recommend a suitable warm-up regime.

## Five top tips when playing golf

1. Start easy and build up your playing time carefully.
2. Don't forget to stretch regularly, especially before taking to the first tee.
3. Fit your shoes with the socks that you plan to wear.
4. Stretch to alleviate stiffness after a day of golf.
5. Lift with your legs. This applies to lifting golf bags in particular - bending at the waist to pick up your bag will strain your back.



# Racquet Spo

## How playing racquet sports impacts on the foot

Racquet sports players burn a lot of calories on the court. Their feet get quite a workout too. The game requires constant movement: forward and backward, side-to-side, running, jumping, lunging and sometimes stumbling!

With all this pounding that the feet, ankles and the Achilles and other tendons around the ankle endure, racquet sports can cause a number of foot-related problems for players.

## Potential problems and when to seek the help of a podiatrist

One of the most frequently encountered court injuries is the common ankle sprain, due to the lateral aspect of these sports. Other court injuries are more shock-related, such as stress fractures in the foot or tibia. Stress fractures can be hard to detect and often people will continue to play and delay the correct diagnosis.

If the stress fracture is in the metatarsal bone - the most frequent site - there can be swelling in the forefoot. But stress fractures can occur in any of the 26 bones of the foot without many symptoms. Some are more common than others, but all of them can happen in court sports. In the stronger, more dense area of the mid-foot, they can take a long time to diagnose, and if not properly diagnosed, can lead to devastating consequences. Whether competing in court sports on an organised level or as an amateur, the foot should not hurt. If pain persists, consult a podiatrist.

Another common injury site is the heel. Heel pain can indicate a plantar fascia injury or bone spur. The plantar fascia is a thin, very strong tissue band that supports the arch of the foot, stretching from the heel to the ball of the foot. As the arch falls, the band of tissue is under increasing tension and the weakest link is where the tissue attaches to the bottom of the heel. Over time and with repeated shocks, micro-events can occur and cause the fascia to tear from the heel, resulting in bone spurs.

Other problems occurring in any sport that may stress the foot and lower legs are high arches, flat feet, hammer toes, differences in leg length and muscle tightness. Wearing the correct equipment can reduce lower leg and foot stress.





# orts



## Equipment required

Athletic shoes protect the feet from the stresses of the sport for which they are designed. So when playing racquet sports, wear shoes made for racquet sports. These shoes will provide stability for side-to-side movement. They are heavier and stiffer than running shoes and the toes are supported for stop-and-go action. Select tennis shoes based on comfort. Price, brand name and special features mean nothing if the shoes do not fit comfortably.

Select sport socks that are designed for racquet sports. They provide additional padding where it is needed and wick away perspiration. When buying new tennis shoes, be sure to try on the socks with the shoes. The sock's extra padding can make a difference in how the shoes fit by half a size. Replacement insoles for shoes can also make a difference.

Special shoe orthotics (inserts) may correct abnormal foot motion and alignment. They can make foot motion more efficient and correct structural imbalances. Orthotics can also relieve pain and reduce the risk of foot injury. Always talk to a podiatrist first for professional advice to ensure you get the correct orthotic for your feet. Remember, the right shoes, socks and foot care will keep your feet healthy and less prone to injury.

## Five top tips

1. Always warm up: a gentle stretching of the lower extremities and the Achilles tendon will help prevent injuries. Lean against a table or wall, placing one foot behind the other. Always roll the weight to the outside border of the foot and don't stretch to the point of producing pain.
2. Buy new, high-quality athletic shoes and replace them frequently.
3. Have the proper footwear for the sport; running shoes are not suitable for sports such as tennis due to their lack of lateral support.
4. Seek appropriate support for arches; flat and high arches call for custom-made arch orthotics (inserts) in shoes.
5. For children, be aware of the potential for injuries of the growth plate in the heel. Persistent heel pain is more than simple overuse; kids should stop participation immediately and a diagnosis should be sought.

# Rugby

By  
Kerry Clarke



## How playing rugby impacts on the foot

Rugby is a multidirectional, multi-speed impact sport played on various types and quality of surfaces, and in every kind of weather. Research has demonstrated that the lower limb is the most frequently injured part of the body, with excessive loads being focused specifically about the joints of the ankle and foot, either through poor technique (using the “wrong foot” position to tackle a player) or more commonly, through unexpected contact with the ground or another player (being tackled or going into a ruck or maul). As a result, rugby injuries are more traumatic when compared with other sports and specifically relate to the player’s position.

Front row players in particular are subject to greater absorption and transmission of forces

through the foot in scrummaging and experience a high degree of knee and cartilage injury, calf muscle and Achilles tendon problems, lateral ankle ligament damage, inflammation or rupture of the tissue in the arch of the foot (plantar fascia) and stress fractures of sesamoids (small bones under the big toe joint) and the metatarsals. The incidence of injury in centres and back row players is greatly increased by tackling and usually occurs as a result of direct force. Interestingly, during training sessions, running is the predominant cause of injury for both forwards and backs.

## Potential problems and when best to seek the help of a podiatrist

- Injuries incurred during training or playing can be attributed to two main factors: single traumatic events resulting in direct injury or multiple, repetitive, traumatic events that impact on joints and soft tissues and ultimately lead to chronic injury and disability.
- Common injury as a result of direct trauma includes damage to the nails, ligamentous damage in particular of the big toe joint (known as “Turf Toe”) and skin lesions such as blisters or haemorrhage. Repetitive injury may lead to heel and arch pain, shin splints or medial tibial stress syndrome and knee problems such as swelling/ locking of the joint. Due to biomechanical mechanisms involved, such types of injury may be more difficult to manage and rarely respond to standard methods of sports medicine such as rest, cold and heat treatments, physiotherapy, strengthening, proprioception retraining and



rehabilitation. Where these methods are effective, the results may be short-lived unless the underlying faulty mechanics are also addressed.

- The key role of the podiatrist is to identify any underlying biomechanical issues and address them by means of insole or orthotic therapy whilst incorporating methods of rehabilitative management, such as improving lower leg muscle function as part of the treatment regime. Such therapy may also benefit the short-term management of the player with direct contact injury.

### Equipment required

Protective equipment available includes gum shields, padded headgear and clothing, fingerless gloves, strapping, grease, support sleeves, shin guards and ankle braces. However, with the exception of mouth protection, there is no solid scientific evidence in support of or against the use of any protective equipment. Despite the lack of research into protective clothing, such equipment is generally advocated as a preventative measure against injury and applies to male and female players alike.



### Five top tips when playing rugby

1. Wear the correct rugby boot. Get them fitted properly for your foot type.
2. Use the correct length studs for the playing surface to minimise falls, joint sprains and strains.
3. If using insoles ensure they are used correctly – seek the advice of a podiatrist if unsure.
4. Socks and ankle protection - socks should also be well fitted and not too large or small to increase shock absorption and support. The use of ankle protectors is an important measure in avoidance of stud injuries.
5. Practice good foot hygiene. In rugby, the demands on the foot are high, so make sure you maintain them properly.

# Running

By  
Tom Austen

## How running impacts on the foot

Whether you are running for fun, fitness or running a marathon, you put yourself and your feet under great stress. On average, you put six times your body weight through each foot when running, which can emphasise any minor or major potential problems significantly!

## Potential problems and when to seek the help of a podiatrist

Pain is the body's way of letting you know something is wrong. Listen to your body and act on it!



Training can cause normal aches and pains. Something called Delayed Onset Muscle Soreness (DOMS) is a normal response from muscles repairing themselves after training. This typically occurs one to two days after a training session, and only lasts a couple of days. An injury is typically something that does not go away and causes you to stop or reduce your training. The most common injuries for runners are listed below:

### Pain at the front of the knee

Referred to as Patellofemoral pain syndrome this is pain in and/or around the front of the knee or knee cap. This typically is worse with repeated bending of the knee (ie running) and going up or down stairs. The pain is typically non-specific with little or no swelling.

### Pain typically on the outside of the knee

Referred to as Iliotibial band friction syndrome (ITBFS), this is typically an overuse injury with a tightening of the band of tissue which runs down the outside of the thigh and inserts into the outside of the knee. Pain typically occurs as the foot hits the ground when running, due to the increased angle of the leg.

### Achilles Tendon pain

Achilles Tendinopathy is another overuse injury, involving the tendon at the back of the leg and foot. This can either have a gradual onset or become painful after a particularly gruelling session. Early treatment is ideal with Ice Compression and Elevation (ICE), addressing any mechanical abnormalities that are present, leading on to a strengthening programme.



### Shin splints

Known as Tibial stress syndrome, this a pain that occurs either in the front or inside of the shin which typically improves once you have warmed up and then is painful the following morning after exercise. A mechanical cause in relation to lower leg alignment can be a big influence in shin pain, and this should be addressed.

### Heel pain

Otherwise known as Plantar fasciitis, this usually happens on standing up first thing in the morning or after a period of rest. This improves as you warm up but then gets worse the more activity you do. Podiatrists are in an ideal position to treat this, as orthoses can reduce the stress on the band of tissue under the foot.

### All of the above injuries need treatment

If you think you have one of the above problems you should consult a podiatrist. The podiatrist can also assess your 'mechanics' - the way you run or walk and offer advice, stretches or exercises to aid performance and prevent injury in the future. They will also assess the need for orthoses, which are special inserts that go inside your shoe to address abnormalities in the way your foot works. See page 27 to find a podiatrist in your area.

### Maintaining healthy feet for running!

Keep your feet clean and dry to prevent blisters. Ensure you shower and dry your feet thoroughly after you have been for a run, to prevent athlete's foot. Change your trainers every 500 miles, to prevent general pain from lack of cushioning or reduction of support. Trainers do not last forever!

### Equipment required!

It is essential to get the correct footwear, as this is vital to keeping you injury free and at peak performance.

### Trainers

There are a number of companies that make 'functional footwear' for running rather than fashion-based footwear. There is also a multitude of trainers with differing amounts of support to suit different foot types. Find a specialist retailer who can assess your foot properly and fit the correct type of trainer for your foot type. See page 26 for further advice.

### Socks

Specialist retailers should be able to advise you on specialist socks that have improved fit, wick sweat away from the foot, prevent blisters and some even have silver threads to reduce smell and prevent athlete's foot infections.

### Five top tips when running

1. Wear the correct footwear. Get these fitted properly to suit your foot type. Too small and they can cause black toe nails and blisters.
2. Wear the correct socks to reduce the risks of fungal infection and blisters.
3. Warm up before you run.
4. Stretch and warm down.
5. Get fresh and out of those socks! Take a towel and spare socks to change in to after your run.

# Skiing

By  
Rose Brandle

## How skiing impacts on the foot

In the cold, muscles take longer to warm up and so you may be more prone to injury when practising winter sports such as skiing and snowboarding. Your feet and ankles are particularly important in skiing, as they act as shock absorbers and brakes, as well as helping you to steer and accelerate when whizzing down the slopes, and so must be as protected as possible. Any pre-existing conditions or injuries can not only compromise your performance, but also leave you open to further damage to the area. However, these risks can be minimised with the right equipment and training.

## Potential problems and when to seek the help of a podiatrist

### Blistering and bruising

These are the most common problems faced by skiers, and can be mainly avoided with quality equipment and good fitting, but cannot be avoided altogether. Not everyone's feet are the same and knobbly protuberances in the foot and ankle will be prone to bruising and friction, which lead to blisters. The ankle bone, toes, top of the foot and front of the shin are easily rubbed by even the best-fitting ski boot, and any moisture held against the foot will cause friction and quickly lead to blisters.

While these sound like very minor problems, bumps and blisters can keep you off the slopes while they heal and eat into your precious holiday time. Do not pop a small blister, but if it breaks on its own, apply an antiseptic and cover with a sterile bandage. If you know you are

prone to blistering in a particular area, some skiers advise applying a dab of Vaseline to the area in question before starting to ski as a preventative measure. Invest in some good plasters and blister cream before you go.

### Foot conditions

Ski boots and the physical exertion of winter sports can exacerbate any pre-existing foot problems, such as bunions, and bony prominences on the inside or outside of the foot are prone to rubbing and blistering if your boot is not well-fitted.

Other conditions, such as diabetes or Raynauds Syndrome, which both affect circulation and are made worse by cold and tight-fitting footwear, have to be carefully monitored when skiing. The best advice is to consult your podiatrist before you hit the slopes. Chilblains are itchy blisters that can pop up in cold conditions, usually on the toes but also on fingers and even on the face. Again, keeping the areas warm and dry is the best way to prevent them.





## Equipment required

Ski boots are the most important piece of equipment for skiing, and ill-fitting boots can lead to a host of problems. Ski boots should be a snug fit - if they are too loose, the foot and ankle can slide around inside the boot and the pressure exerted by the constant forward motion and lateral movement of skiing could lead to sprains, strains and fractures. Too tight, and the boot will rub and blister the foot.

The boots must be rigid enough to keep your feet and ankles firmly in place, especially the heel, but should allow your ankle to flex. The toe box should be snug but not too tight. You can test the fit by leaning back: your toes should just skim the front of the boot. To check the general fit,

kick your heel and then your toe against the ground while wearing your boot. If your foot slides backwards and forwards, the boot is probably too loose.

Remember that you will be wearing your boots for around seven hours a day while skiing, so they must be comfortable. Choose boots carefully, trying on a number of models and wearing them around the shop before you make your choice.

## Socks

Socks are part of your insulation from the cold and are crucial in winter sports such as skiing. Good socks will not only help keep your feet dry by 'wicking' away moisture from the feet but will also keep them warm and comfortable within your boots. It is essential to take your socks along when having your boots fitted: thin socks are recommended by podiatrists and ski specialists alike.

## Five top tips when skiing

1. Choose the right boots - this is essential, so don't rush it!
2. Wear one pair of thin socks designed for skiing - don't layer, and don't wear cotton socks.
3. Take a first aid kit with you that contains plenty of plaster and blister cream.
4. Don't tuck your trousers into your boot.
5. Look for ski clothes made of materials that transport perspiration away from the skin, and waterproof outers to keep you dry.



# Walking and hiking

## How walking impacts on the foot

In an average lifetime, we walk about 100,000 miles, which is tough on our feet. Yet our bodies were designed for moving not standing still, so walking is good exercise. Walking helps the muscles and ligaments in our feet to work more efficiently, and helps keep them supple and flexible. So even if you have to sit around a lot in your job or at home, try to get up and walk briskly for at least 30 minutes every day. Feet are adaptable and can withstand a lot of pressure before they rebel. If you walk a lot, it's important to wear the right footwear which won't damage your feet.

## Potential problems and when to seek the help of a podiatrist

Walking at a brisk pace for regular exercise helps condition the body and improve overall cardiovascular health in the same way running and jogging do. But compared with running, walking carries a significantly lower risk of injury. Consult your podiatrist if you start to develop pain when walking, or consider a visit before embarking on your new walking programme.



## Equipment required

The key to keeping your feet healthy and comfortable, regardless of the type of walking you do, is wearing properly fitting shoes. When buying walking shoes, try on several different brands, styles and most importantly sizes. Your feet can expand as much as half a size during the day, so shop for shoes in the afternoon or early evening when your feet are at their largest. That will help protect them as they expand during your longer walks. Also, wearing the same type of socks when fitting shoes that you wear when you walk will help you select the right shoe.

To get the best out of your walking shoes, you need to look after them properly. Polish them regularly and, if they get wet, put newspaper inside them and let them dry out completely before putting them on again. It's a good idea to invest in a couple of pairs so you always have one in reserve.

## Maintaining healthy feet for walking

If you are going on a long walk, prepare well ahead. Take your shoes for a 'trial walk' and build up the distance gradually; don't try to complete the London Marathon on your first trip! It's also a good idea to pay a visit to your local HPC - registered podiatrist who will be able to give advice, and treat any corns or callus you may have. Take some first aid supplies, like plasters or antiseptic cream, on your walking trip in case of accidents. It's also a good idea to put some vaseline between your toes to prevent chafing.

Begin your walk at a slower pace and gradually increase the speed of your walk. This will give the muscles, bones, tendons and ligaments that make up your feet the chance to get used to the activity. If you experience any discomfort or foot pain, then it may be an indication that something more serious is wrong. We all know that "an ounce of prevention is better than a pound of cure". In many cases, early diagnosis can prevent a small injury from becoming a larger one.



## Five top tips

1. When buying shoes, wear the same socks to the store that you will wear while walking.
2. Try on at least four or five pairs of shoes. Put on and lace both shoes of each pair and walk around for a minute or two.
3. Good foot care is essential in keeping your feet comfortable and fatigue and injury free. See page 4.
4. If you experience any sort of foot pain, consult a podiatrist. See page 27.
5. Before you walk, go through a warm-up and stretching routine.

# Footwear General Advice

Footwear should be given the same consideration as any other piece of sporting equipment. Sports shoes should protect as much as possible, be durable, and should be right for the sport and surface. If running, the shoe should have adequate cushioning in the midsole and a flared heel for stability.

Registered podiatrists will be able to give advice on suitable footwear. They will be able to suggest suitable warm up exercises to ease you gently into your chosen sport, and help prevent injury. See page opposite.

## Shoes for sporting activities

Getting the right shoe really cuts down on the likelihood of suffering a sports-related injury. Make sure that you buy a shoe that is designed for the activity you are doing:

### Running shoes

Running shoes are designed for just that – running! They are very flexible, which enables the foot to bend and flex through each step. Do not use for sports such as tennis, basketball or aerobics, which involve sideways stepping.

### Cross trainers

These are much stiffer and provide greater support for the foot when side-to-side movements are made, allowing them to be used across a range of activities.

### Sports shoes

Designed for tennis, basketball etc and give a combination of flexibility and sideways support.

### Fitness shoes

Designed for aerobics etc, they combine flexibility with support and incorporate cushioning to lessen the effect of shock generated during high impact work.



## Quick tips to remember when shoe shopping

1. Make sure you can wiggle your toes a little.
2. Try on both shoes and walk a few steps to see if they pinch or rub.
3. Leave 1cm of room from the top of your longest toe to end of the shoe.
4. Feet are usually biggest in the late afternoon/evening.

## Socks

Good socks will not only help keep your feet comfortable within your shoes but will also keep them dry by drawing moisture away from the feet. Whatever you do, don't wear 100% cotton socks - they hold the moisture against the skin, causing painful blistering. Wool and silk are often found blended with the latest generation of synthetic materials. If you find wool too warm or irritating, you could try an acrylic blended sock.



# Podiatry

Socks made with new materials such as CoolMax or DriMax are designed to wick sweat away from the skin, keeping it nice and dry

## Blisters

Blisters are painful, fluid-filled lesions produced by friction and pressure. They can be caused by the following:

- Ill-fitting shoes.
- Stiff shoes.
- Wrinkled socks against the skin.
- Excessive moisture.
- Foot deformities.

## How to prevent blisters

- Keep your feet dry.
- Always wear socks as a cushion between your feet and shoes.
- Wear properly fitting shoes.

## If a blister does occur, do not pop it.

Cut a hole in a 1.5" piece of foam or felt, forming a 'doughnut' over the blister; tape the foam or felt in place or cover with a soft gel-type dressing. Treat an open blister with mild soap and water; cover it with an antiseptic ointment and protective soft gel dressing to prevent infection and speed up the healing process.

## Further reading

### Choosing a sports shoe

[www.feetforlife.org/cgi-bin/item.cgi?id=477](http://www.feetforlife.org/cgi-bin/item.cgi?id=477)

### Keeping feet healthy for sportspeople

[www.feetforlife.org/cgi-bin/iadmin.cgi?page=16](http://www.feetforlife.org/cgi-bin/iadmin.cgi?page=16)

## What does a podiatrist do?

The role of the podiatrist (also known as a chiropodist) is to prevent or correct deformity and maintain normal mobility and function. Podiatrists provide the basis for the ideal walking style and posture and identify any medical or surgical condition that may require further referral and management. They also relieve pain, treat infections and skin, nail, soft tissue and connective tissue problems. This is done in conjunction with other members of the health care team. Podiatrists can also give expert advice on footwear, so it is a good idea to take a pair of shoes with you when you next see your podiatrist.

## How to contact a podiatrist

To find a local podiatrist, you can either approach your GP practice for information on a NHS referral or if you decide to see a private podiatrist you could use the following link on the Society's web page: [www.feetforlife.org/cgi-site/chiropodist.cgi](http://www.feetforlife.org/cgi-site/chiropodist.cgi)

## Become a podiatrist

Working as a podiatrist can be exciting and rewarding. It involves working in a variety of environments with a number of other health care professionals and many different groups of patients who have a wide range of podiatric problems. The scope of practice of a podiatrist is often much wider than many people realise. The work falls in to four key categories:

- General Clinics
- Biomechanics
- High Risk Patient Management
- Surgery

Please visit [www.feetforlife.org](http://www.feetforlife.org) and click on the careers topic for full details of this fulfilling career.

# Useful contacts

## Feet and Podiatry

[www.feetforlife.org](http://www.feetforlife.org)

[www.diabetes.org.uk](http://www.diabetes.org.uk)

[www.epodiatry.com](http://www.epodiatry.com)

[www.apma.org](http://www.apma.org) (US site)

[www.csp.org](http://www.csp.org)

## Sports

[www.thefa.com](http://www.thefa.com)

[www.britishcycling.org.uk](http://www.britishcycling.org.uk)

[www.disabilitysport.org.uk](http://www.disabilitysport.org.uk)

[www.lta.org.uk](http://www.lta.org.uk)

[www.ramblers.org.uk](http://www.ramblers.org.uk)

[www.runnersworld.co.uk](http://www.runnersworld.co.uk)

[www.rfu.com](http://www.rfu.com)

[www.trymysport.co.uk](http://www.trymysport.co.uk)

[www.ukathletics.org](http://www.ukathletics.org)

Please visit

[www.feetforlife.org](http://www.feetforlife.org)

for may more sports

and podiatry links.

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[www.feetforlife.org](http://www.feetforlife.org)

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### Cricket

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