PLANTAR FASCIITIS

**What is plantar fasciitis?** Plantar fasciitis is a painful condition of the foot caused by repetitive strain to the plantar fascia. This is a fibrous band of soft tissue connecting your heel bone to your toes. It helps to reinforce the arch of your foot and acts like a bowstring to stiffen your foot when you walk.

**What are the symptoms of plantar fasciitis?** Plantar fasciitis is a relatively common condition that affects approximately 1 and every 10 adults. Both athletes and nonathletes can suffer with this condition. It tends to be more common in people whose occupations involve standing on hard surfaces for long periods, and those to carry out sporting activities such as long distance running.

**What are the risk factors for developing plantar fasciitis?** Many things affect the load being put through your plantar fascia. Plantar fasciitis is not simply the result of exercising or standing or walking too much. General risks include:

*Age*: It is more common between the ages of 40 and 60 years
*Gender*: It is more common in women than men
*Weight*: You have a high risk if you are overweight
*Diabetes*: People with diabetes are more likely to get plantar fasciitis
*Flexibility*: Reduced ankle movement can increase the risk
*Foot type*: It is more common in people with high arched feet or extremely flexible feet
*Footwear*: Poor quality footwear can also increase the risk

**What are the symptoms of plantar fasciitis?**Pain is felt around the heel bone, usually on the sole of the foot. People often complain pain when they first get up after rest. You may find this pain settles during the day and with exercise but is worse at the end of the day or after a lot of activity. Some people experience severe pain from the plantar fascia, which stops them during their sport and may cause a limp.

**X-rays or scans**
It is often necessary to carry out imaging (x-rays or scans) to be able to diagnose plantar fasciitis; it can usually be confirmed by your doctor using your medical history and examination. X-ray may show a heel spur, which is a small piece of bone that can grow on the underside of the heel bone, near the plantar fascia attachment. This can be mistaken as the cause of plantar fasciitis. We know that approximately 3 out of every 10 people have a heel spur and a few of them have heel pain. Similarly, many people with plantar fasciitis do not have a heel spur.

**Basic first line treatments:**
*Ice*: Application of ice wrapped in a damp towel or a frozen gel pack to the affected area helps reduce pain. Apply for maximum 20 minutes, 4 times a day, or after exercise. Please take care not to apply ice for too long or directly to the skin, as this can cause ice burns. Do not apply ice/ice packs to the area where you have numbness, decrease sensation or poor circulation. \*An alternative method would be to freeze a water bottle followed by rolling this between your heel and your arch 3 times daily for 20 minutes.

*Over the counter medications*: A short course of anti-inflammatories (such as ibuprofen) for a few days can be helpful. Anti-inflammatory should be taken with food.

*Rest*: You can help to maintain your fitness using different forms of exercise that do not significantly aggravate your symptoms, such as swimming, cycling, aqua jogging (running in water). Try to adjust your work pattern to break up long periods of standing or being on your feet.

*Home exercises*: Stretching the plantar fascia, rolling of the plantar fascia on a round hard object like a golf ball or a frozen water bottle. See additional handout.

*Footwear*: Recommend supportive footwear with a stiffer outer sole and a shock absorbing insole. Wear footwear that has arch supports and cushioning for your heel. Avoid walking barefoot or in flip-flops/sandals. Maintain your shoes in good condition and renew your trainers every 300 to 500 miles. Consider having 2 pairs of trainers on the go at the same time if you are a runner.

*Managing your weight*: If you are overweight, see your GP to discuss strategies to help you lose weight. This can make a big difference in your plantar fasciitis and general health.

*Cross training*: Various exercises in different ways, to train other parts of your body. This is called cross training and is a valuable method of reducing injury and keeping fit. Some examples of cross training that you may find useful are swimming, spin classes, Pilates, circuits, rowing, weight training, aerobics, cycling, and using gym equipment.

*Physical therapy*: This may involve several different treatments including manual techniques such Astym or deep tissue cross friction mobilization, other specific exercises.

**More advanced treatments:**

*Custom molded functional foot orthotics*:

*night splints:* To help prevent your plantar fascia from tightening up overnight.

*topical anti-inflammatory medication*

*cortisone injection*: (The latest evidence suggests that steroid injections may not be the best treatment option. There is a risk of plantar fascial rupturing following a steroid injection. Steroid injections can also cause thinning of the fat pad cushion under your heel. This can lead to long-term problems. For these reasons, routinely using steroid injections as a treatment may not be the best option. For that reason, your doctor will limit the number of cortisone injections).

**Most advanced treatments:**

Heelex low-dose x-ray therapy

Last resort- surgical intervention (not 100% guaranteed)

**Frequently asked questions**:

Q. Will I always have to do my exercise program? Normally once the pain has settled you do not need to keep up with daily exercises. However, if you find your symptoms returning then it is best to return to your exercise program.
Q. Is there a risk that my plantar fascia will rupture while doing exercises? There is no evidence that the plantar fascia is at risk of rupture while doing exercises.
Q. Can I get back to my sport? Return to your sport is guided by your symptoms. We advise a gradual return to your sport. You may have lost conditioning during your injury and recovery, which is why maintaining your cardiovascular fitness through other activities (such as swimming and cycling) is important. Return to sport as pain allows.
Q. Can I still run during my rehab phase? There is no evidence that you will do yourself harm if you return to running. You can run, provided you have little discomfort. However, your rehab may take longer, as running may aggravate your symptoms. You may want to consider alternative forms of exercise, such as swimming or cycling, to maintain fitness.