

Eastbourne Podiatry Limited

www.eastbournepodiatry.co.uk

C/o Eastbourne Clinic of Natural Medicine
69 Meads Road Eastbourne East Sussex BN20 7QL
01323 734664 Mobile 07723064941

The **Plantar Fascia** is a thick fibrous band of connective tissue with insertion to the bottom end of the heel bone (Calcaneus), and forward attachment to the base of each toes (Metatarsal heads).

Its main function is to provide integrity of the arch, binding rearfoot to forefoot and acting as a polly to lift the foot and the big toe joint.



A collagen degeneration and inflammatory condition affecting this structure thereby causing severe heel pain in adults. It is presently called **Plantar Fasciitis (PF)** and previously was known as **Policemen's Heel**. It is mistakenly called **Heel spur**. It is because not every heel pain is due to Heel Spur.

It is a common condition, often self limiting but can be difficult to treat (specially on recurrent cases) if not looked after properly and if patient does not sought advice or treatment early.

Plantar Fascia is stretched like an elastic band with body's weight on the arch on walking or prolonged standing, thereby pulling the end of the heel bone with each stretch. It is this constant pulling which causes a micro trauma which eventually present itself as that sharp and nagging pain.



The causes of Plantar Fasciitis often reported to be associated with long periods of weight bearing such as in cashiers, overuse i.e. sports and in majority of cases trauma ranging from a sudden trauma to the heel or walking on ill fitted shoes for long period of time.

The shape of the arch, either high or low arch foot predisposes the risk of developing PF. A difference in the leg length with excessive force on the longer leg also can increase the risk, however these anatomical anomaly play less risk than overuse or trauma.

PF represents a sharp stabbing pain on the heel, and on placing the foot on the ground at first rise in the morning. The pain subsides but does not disappear. But with continued walking and weight bearing throughout the day, the consequent swelling and inflammation dispersed. The pain tend to reappear after any period of rest.

The reported cases of PF amongst the USA citizens alone in a year is about 2 million, and 10% of the US population over a life time.

The most common cause cited for plantar heel pain is biomechanical abnormalities that lead to pathologic stress to the plantar soft tissues.

Treatment options of PF include:

They include regular stretching of the calf muscles, avoidance of flat shoes and barefoot walking, use of cryotherapy directly to the affected part, custom made arch supports and heel cushions, and limitation of extended physical activities. If improvement is noted, the initial therapy program is continued until symptoms are resolved. If no improvement is noted, the patient should be referred to a podiatrist for a lower limb biomechanical assessment and arranging the appropriate arch support.

As a rule the longer the duration of heel pain symptoms the longer the period to the final resolution of the problem.

Here are some instructions to be followed initially and suggested to continue until the final resolution of your heel pain symptoms.

RICE, recommended by all medics treating sport injuries.

R = Rest Of course rest is best as they say. In the case of any sport injury.

I = Ice Therapy, The application of cold to an injured soft tissue has been recommended in order to reduce the swelling and pain. Reduction in temperature of the injured tissue leads to a reduction in metabolic rate hence maintaining the tissue in the period following the injury. Care must be taken not to apply the ice directly on the skin and on the injured area. It is recommended that to either use an ice pack with protected layer or to fold it with a damp towel. Also a frozen can of any drink or a cold glass bottle of drink can be used wearing a damp sport sock and rolling under the foot.

Compression= It is the compression which reduces the swelling. This occurs by hindering fluid loss from the injured tissues

E = Elevation

Massage therapy:

Massage is the manipulating of superficial and deeper layers of muscle and connective tissue using various techniques, to enhance function, aid in the healing process, and promote relaxation and well-being. This can be done by massaging the painful areas of your heel and arch before getting up in the morning and while on bed,

Stretching Calf muscles:

A tight calf muscles(Achillis Tendon) also is regarded to be amongst other causes for PF. A tight

Achillis tendon pull at the back of the heel causing a knock on effect in keeping the Plantar Fascia tight. Also when sleeping over night the Plantar fascia tends to tighten up, contributing to the pain in first rise in the morning. Studies have shown an active stretch of the Calf muscles can contribute to a faster recovery from PF.



Any stretching exercise of the body tissues should be carried out very gently to start with, and increased gradually as one gets used to the exercises.

Stand about an arm length away from the wall with hands on the wall at shoulder height, feet slightly apart and one foot in front of the other. Bend your arms and the front knee, keeping the back knee straight making sure your back ankle, knee and hip is a straight line. The back heel should be pushed down and firmly kept on the floor. In doing so you should feel a tightening stretch on your Calf area. Maintaining the gentle pressure in this position for 10 seconds and then switch to other leg.

NB. The distance between each foot determines the amount of stretch so make the distance shorter initially and increase as you get used to this exercise.

Now bring the forward foot slightly further back and slightly bend both knees down, leaning against the wall and maintain in this new position again for 10 seconds.

This exercise is geared up to stretch a deeper group of calf muscle called Soleus. You should do this 3 times and 3 times daily.

An improvement on these exercises can be made after 2 weeks of this floor exercise.

This is done by standing on the bottom of some stairs with your legs straight, slightly apart and with your heels just off the end of the step. Hold the stair rails or banister for support. Lower your heels, keeping your knees straight. Again you should feel a stretch in your calves. Keep in this position for 10 seconds increasing up to 20 seconds after a few days. You should do this 3 times and 3 times daily. Do this exercise with shoes or trainers on to avoid soft tissue damage.

Toe Work Outs:

Strengthening the muscles of your feet would also help to provide relief of PF.

Start by picking up socks and wash clothes and move up to harder objects such as marbles, coins and pencils etc.

Another variation to this exercise is to place your foot on the end of a laid down towel or paper towel, then by grasping and curling your toes, draw towards your body.

Also try and play piano with your toes in a sitting position by trying tapping them in turn.

It is also possible to loop a towel around the ball of the foot you want to stretch, with your knee straight, pull your toes towards your shin. Hold the position for 10 seconds and release, repeat 3 times for each foot, once daily. Use a longer towel to prevent any injury to your back.