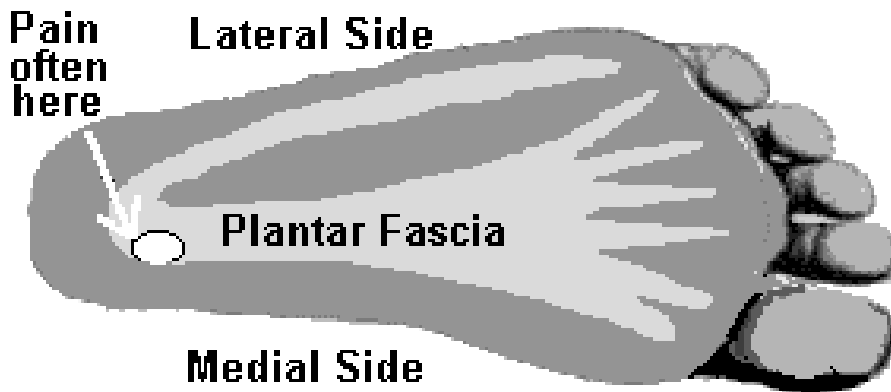


# Plantar Fasciitis (Heel Spur)



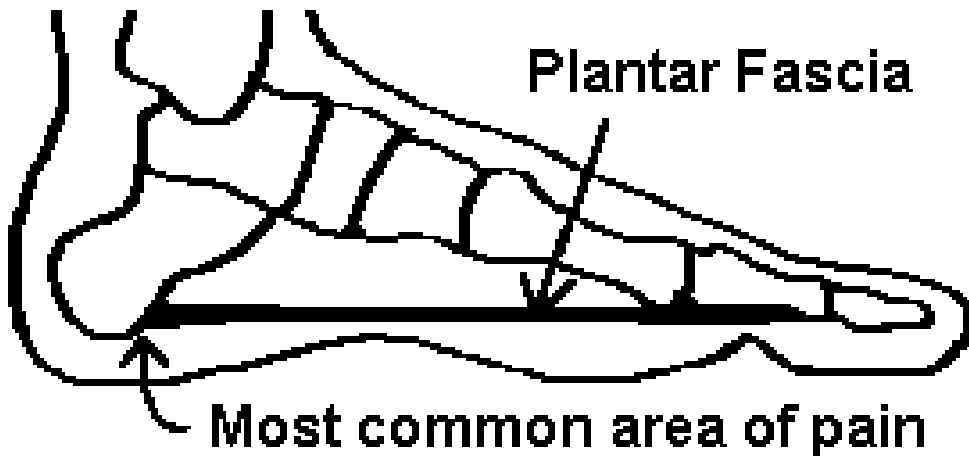
## What is Plantar Fasciitis?

Plantar Fasciitis is an injury causing heel pain and foot pain. The Plantar Fascia or arch ligament is a band that runs from under the heel to the front of the foot. A rupture can sometimes occur at the origin of the arch ligament and result in inflammation and heel pain.



## What are the symptoms?

Heel pain at the origin of the arch ligament when weight is put on the foot, pain at this point if standing on tip toes, tenderness and swelling under the heel, numbness along the outside of the sole of the foot.



Pain is usually worse first thing in the morning. After a few

minutes it eases as the foot gets warmed up, but can get worse again during the day especially if walking a lot.

If the individual over pronates then they may be prone to this injury because as the foot rolls in, the arch ligament is stretched more, putting more strain on it.

## What will physiotherapy consist of?

**Massage** encompasses a variety of techniques and is given with sufficient pressure through the superficial tissue to reach the deep lying structures. It is used to increase blood flow, decrease swelling, reduce muscle spasm and promote normal tissue repair.

**Deep friction** is an aggressive massage technique. It is applied across the tissue fibres. Pressure is given as deeply as possible. This technique is initially painful but can cause a numbing effect. It can be used to break down scar tissue, restore normal movement and prepare the injured structure for mobilisation or manipulation.

**Mobilisation** is a manual technique where the joint and soft tissues are gently moved by the physiotherapist to restore normal range, lubricate joint surfaces, and relieve pain.

**Ultrasonic Therapy** transmits sound waves through the tissues stimulating the body's chemical reactions and therefore healing process, just as shaking a test tube in the laboratory speeds up a chemical reaction. It reduces tissue spasm, accelerates the healing process and results in pain relief.

**Interferential Therapy** introduces a small electrical current into the tissues and can be used at varying frequencies for differing treatment effects. E.g. pain relief, muscle or nerve stimulation, promoting blood flow and reducing swelling/inflammation.

## Other treatments that may be used

**Laser Therapy** emits beams of light into the tissues of the body, stimulating chemical reactions and having a similar effect to ultrasound though using light energy instead of sound energy.

**Acupuncture** is an oriental technique of introducing needles into the skin to increase or decrease energy flow to promote pain relief and healing.

**Injection Therapy** is a specialist procedure, which needs the consent of your G.P. A non-harmful steroid and local anaesthetic are injected directly into the injured structure. It has a dramatic effect on removing inflammation and promoting healing.

**Taping/Strapping** may be used if thought necessary to restrict abnormal movement and prevent further damage.

**Podiatry** - an analysis of the foot mechanics and structure during walking or running and correction as appropriate.

## What should the patient do to help their condition?

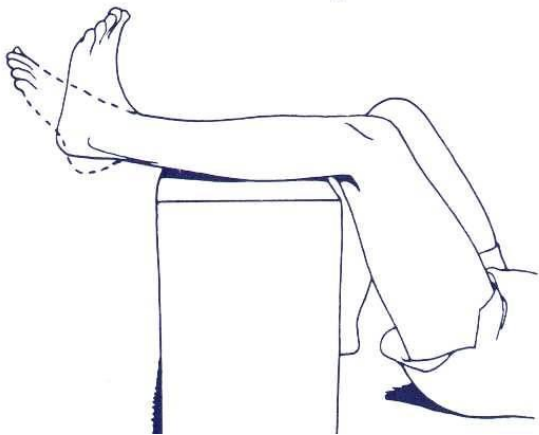
**Active Rest** – keep active but avoid activities that aggravate your condition i.e. any activity that may put excessive strain through the foot.

**Apply Cold treatment** - for a maximum of 20 minutes. Place a standard sized tin in the freezer and when taking it out run under the cold tap first to prevent an ice burn. Then roll the tin under the arch of the foot using heavy pressure.

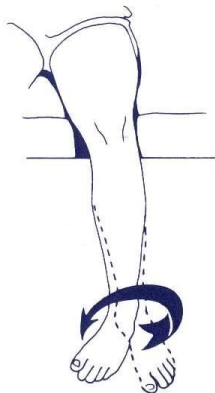
**Contrast bathing** - From 5 days post injury put the foot into a bucket of water as hot as you can withstand for 5 minutes followed by one with water as cold as you can withstand for 5 minutes repeat for approximately 20 – 30 minutes.

**Take ibuprofen/ analgesia** - according to the directions on the packet, up to the maximum daily dose. It is not suitable for people who have a history of stomach ulcers, or for some people with asthma. If in doubt, ask your pharmacist for advice.

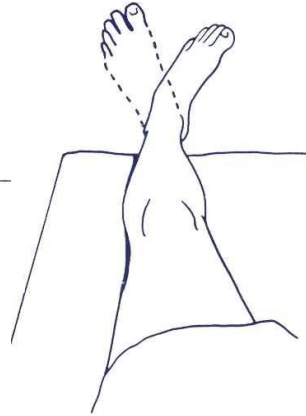
**Exercise/Postural programme** – comply with the prescribed exercise/postural programme. **Your physio will instruct you as to which of the above exercises to begin with, when to add the others, as well as how to progress the exercises.**



1. Foot pump up + down



2. Foot Circling



3. Foot pump in + out

### Exercises 1-3

Pump the foot in the 4 differing directions for approximately 30 seconds

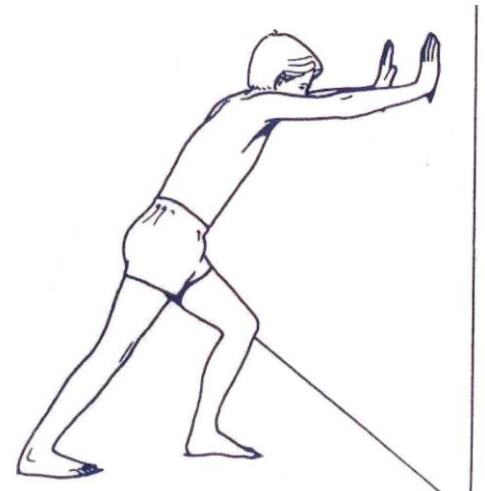
Do 10 repetitions and at least three times daily

### Exercises 4-8

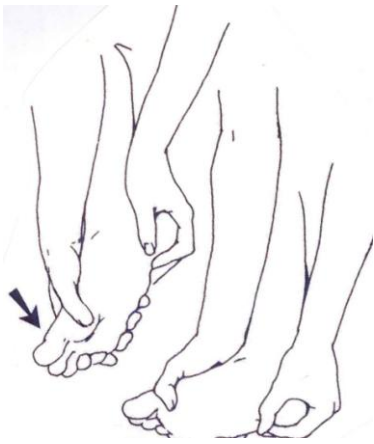
Stretch slowly into the desired direction and then hold for approximately 30 seconds, during this period the stretch should ease and you should keep going further into the stretch without jarring or bouncing.



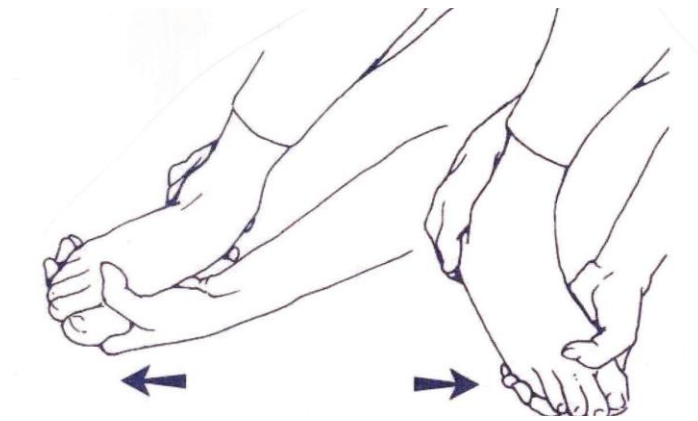
4. Soleus Stretch



5. Gastrocnemius stretch



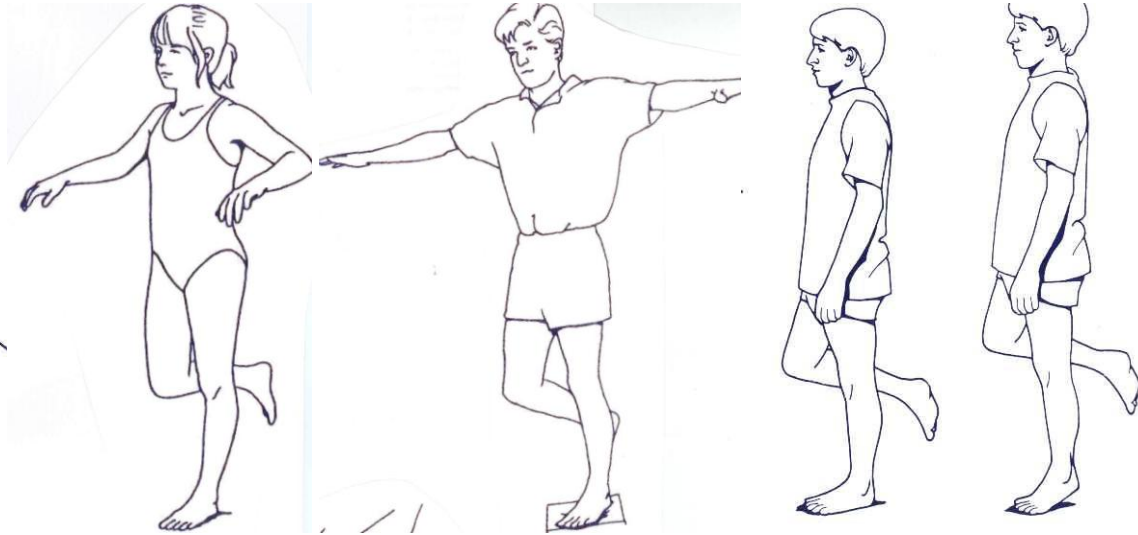
**6. Plantarflexion stretch**



**7. Inversion and Eversion Stretch**



**8. Plantar Fascia Stretch**



**9. Balancing** – Stand on one foot and try to balance for one minute. When able to do this, try with the eyes closed, then on uneven surfaces and then going onto toes. Do 2-3 times daily

**10. Calf raises** – Rise up onto the ball of the foot as high as possible and hold for two seconds. Repeat 10 -15 times and do 2-3 times daily. You may also progress to doing this over the edge of a step.

**What if physiotherapy does not help or resolve my condition?** It is very rare that physiotherapy does not resolve this condition, in these cases a cortisone injection may be appropriate and in very extreme cases surgery is a possible option. These options can be discussed with your therapist if appropriate