

# PLANTAR FASCIITIS

Plantar fasciitis is a common foot problem. It starts as a dull intermittent pain in the heel that may progress to a sharp persistent pain.

Classically, it is worse in the morning or after a period of rest when taking the first few steps. It may also be apparent when commencing a sporting activity.

The plantar fascia is a thick broad band of fibrous tissue on the bottom (plantar surface) of the foot. It is attached to the heel bone (calcaneus) and fans out to attach to the metatarsal bones in the ball of the foot. It is responsible for maintaining the arch of the foot.

The problem usually occurs when part of this inflexible fascia is pulled away from the heel bone. This causes an inflammation and thus, pain. Since it is difficult to rest the foot, a vicious cycle is set up with the situation aggravated with every step. In severe cases, the heel is visibly swollen.

As the fascia is pulled away from the bone, the body reacts by filling in the space with new bone. This causes the classic 'heel spur'.

This heel spur is a secondary x-ray finding and is not the problem, but a result of the problem.

## PREDISPOSING FACTORS

- More common in females
- Increasing age
- Significant increase in weight.

## TREATMENT

### Rest

Use pain as your guide. If your foot is too painful, weight-bearing sports can be temporarily replaced by swimming and /or cycling to maintain cardiovascular fitness. Weight training can be used to maintain leg strength.

### Ice

Icing your heel for 15 minutes several times a day will reduce inflammation. You should also ice your heel after any physical or sporting activity.

Simply wrap crushed ice in a damp towel and leave on for 15 minutes, then remove for 15 minutes before applying again. This can be repeated up to 4 times per day.

Remember to never apply ice directly to the skin.

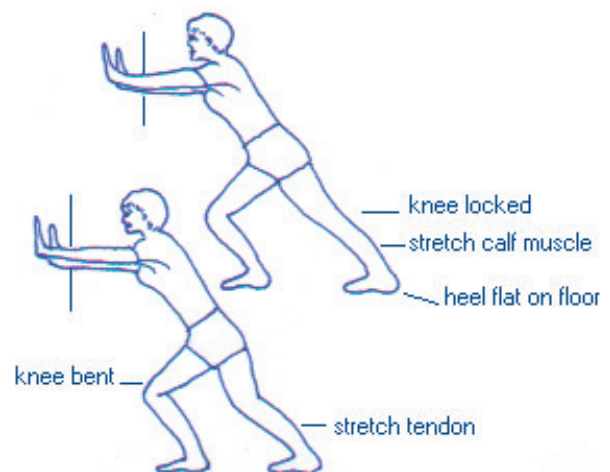


### Stretching programme

Stretching the ligament (plantar fascia) to "warm it up" before activity and increasing its flexibility is very important. This is achieved by pulling the foot towards the face for at least 60 seconds before getting up from bed or prolonged sitting and also by performing stretching to the Achilles tendon against the wall 2-3 times per day.

Stand at arms length from a counter, table or wall with your back knee locked straight and front knee bent. Slowly lean forward till a stretch is felt in the calf of the locked leg. Hold for 10 seconds.

Keeping both heels on the floor, bend the knee of your straight knee till a further stretch in the calf is felt. Hold 10 seconds more. Change legs and stretch the other side. Repeat 10 times. Do this sequence 2-3 times per day.



## Heel pads

A heel pad of felt or sponge or newer materials (sorbothane, spenco) can help to absorb the shock as the heel lands and ease the pressure on the plantar fascia.

It may be necessary to cut a hole in the heel pad so the painful area will not be irritated.

Heel pads and heel cups are available from sport stores and medical supply stores.

Sometimes an arch support specially fitted by a podiatrist may be needed.

## Physiotherapy

The initial objective of physiotherapy (when needed) is to decrease the inflammation. Later the small muscles of the foot will be strengthened to support the weakened plantar fascia.

## Weight loss

Weight loss may be encouraged if it is a significant contributing factor.

## Medication

Your Doctor may prescribe anti-inflammatory medication. This will assist in reducing the inflammation in your foot.

## Cortisone

A cortisone injection is often quite beneficial if the described treatments have not solved the problem. It is a local injection and is very safely administered in this area.

## Shock wave therapy

A new modality requiring 3 treatments a week apart. Shock waves are sent into the heel by a special machine. This often leads to an improvement.

## Night splints

Sometimes a special splint will be fitted to stretch the plantar fascia while asleep. These splints will need to be used for 3-4 months.

## Surgery

Surgery is rarely needed and is considered only after all other measures have been tried. When done it involves the release of the tight ligament and release of pressure on the nearby nerves. The results are inconsistent therefore it is left as a last resort.

## PHYSICAL ACTIVITY

Plantar fasciitis can be aggravated by all weight bearing sports. Repetitive foot landing such as occurs in running and jogging, will aggravate the problem.

When the problem is severe the best sports are ones which are non-weight bearing such as cycling and swimming.

Your return to weight bearing sports must be gradual.

If you experience increased pain either during or after the activity you are probably doing too much.

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