

PLANTAR FASCIA SYNDROME



PINDARA PHYSIOTHERAPY AND SPORTS MEDICINE

WHAT ARE THE SIGNS AND SYMPTOMS?

- ❑ Pain under the heel bone
- ❑ Pain that is aggravated by activities like walking, running, jumping and hopping
- ❑ Pain that can get worse with prolonged standing.
- ❑ Pain with the first few steps in the morning which then settles

WHAT IS PLANTAR FASCIA SYNDROME?

The plantar fascia is a dense band of fibrous connective tissue, much like a tendon, on the bottom of your foot. It starts at your heel and goes along the bottom of your foot. It attaches to each one of the bones that form the ball of your foot.

The plantar fascia works like a rubber band between the heel and the ball of your foot to form the arch of your foot. As you walk the plantar fascia become tight to lock the foot and maintain the arch.

For a variety of reasons the plantar fascia can become overloaded and it starts to pull away from its attachment point on the heel causing pain.

What about heel spurs?

Spurs can arise when the plantar fascia pulls hard on the heel for a long period of time.

The spur itself is not the problem but rather the overload on the fascia and its attachment.



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HOW IS IT TREATED?

Unfortunately Plantar Fascia problems are one of the most difficult to manage. As a result we favour a multi-faceted approach involving two tiers.

Tier One

Often the reason the fascia becomes painful is that it is placed under too much load. Tier One involves conservative management and aims to reduce load on the fascia. If the load can be reduced the pain normally settles.

The best people to manage your tier one approach are Podiatrists and Physiotherapists in combination. If you don't have a podiatrist or physiotherapist, please contact this practice and we can assist you in this regard.

Tier One Management addresses the following areas:-

- **Calf Length and Tightness**

A short calf and Achilles region will increase the load on the plantar fascia. Massage and stretching can assist to increase the length of these tissues and thereby reducing the load. Dry Needling and Acupuncture can also help in this regard in some patients

- **Taping and orthotics**

Reducing the load on the fascia while it settles using taping techniques and /or orthotics can be quite helpful.



- **Foot Muscle Strength**

Under the plantar fascia there is a group of small but important muscles called the Intrinsic. A strengthening program for the intrinsic done in a weight bearing fashion can dramatically reduce load on the plantar fascia. These muscles support the foot so weak intrinsic will mean the Plantar Fascia will need to work harder.



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Foot mobility

The foot itself can become rigid and stiff and some “loosening up” by your Physiotherapist can help. Self-massage using a golf ball has been helpful for some people. Again Dry Needling and Acupuncture can also help in this regard in some patients also.

Night Splints

Overnight the calf, Achilles and plantar fascia are all placed in a shortened position. When you first put weight on your foot on arising these tissues need to stretch out again. The use of a night splint keeps these tissues in a lengthened position and often reduces morning symptoms dramatically. We feel this may also help overall recovery time. The Strassburg Sock is an example of a low cost easy to apply night splint.



Extracorporeal Shock Wave Therapy or Lithotripsy

Extracorporeal shock wave therapy (ESWT) is a treatment method using high-energy sound waves that are introduced into the painful area. There are some people that respond well to this intervention. The results are somewhat mixed but may be worth trying for those who have had long term issues.

Footwear Selection

The right type of shoe can make a big difference for day to day comfort...your podiatrist can make some suggestions here.

Nerve issues

On occasion, because of an altered walking pattern the nerve around the heel, both on the inside and outside of the foot and heel can become stuck down and irritated. Specialised nerve "sliding and gliding" exercises may be required to "unstick" these nerves which will reduce any pain arising from this. Once the plantar fascia has improved, your walking pattern returns to normal and the nerves return to normal sliding and gliding, when this occurs the pain usually settles.

Weight Loss

Being overweight is a risk factor for Plantar Fascia Syndrome. You should notice improvements for every 5kg you lose (Not to mention the other health benefits!).

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Tier 2

Tier Two management is usually only considered once a good attempt at Tier One has been completed.

Steroid injections

These can be helpful in some cases but are unlikely to work in isolation to the Tier One methods outlined above...we still need to reduce the load on the plantar fascia. If this is not done then any positive effects from the injection are likely to be short lived. There are some possible complications of injection including but not limited to infection and plantar fascia rupture.

Autologous Blood Injections (ABI)

This relatively new technique has achieved some good results for some patients. Similar to the injections mentioned above.... we still need to reduce the load on the plantar fascia. If this is not done then any positive effects from the injection are likely to be short lived. The procedure of ABI involves withdrawing whole blood from the patient, usually taken from the patient's elbow or forearm, and then injecting it into the area of maximal abnormality. This is done using ultrasound guidance to ensure that the blood is delivered precisely and safely to the area concerned. Platelets, small cells found in blood which are involved in clotting, contain growth and healing factors which release substances into the fascia when injected and commence a cascade of natural healing. Results are dependent on the severity of the underlying fascia problem and the duration of symptoms.

A Word on Surgery

We rarely recommend surgery to those with this condition. Results appear to be unpredictable and complication rates are high.

Be advised this information sheet is a guide only.

If you are experiencing any problems or have any questions, please feel free to contact your treating physiotherapist at Pindara Physiotherapy on 5539 4484

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