

Plantar Fasciitis - Heel Pain

Plantar fasciitis is a common problem that will affect 1 in 10 people at some point in their life. The primary symptom of plantar fasciitis is heel pain.

The pain can be debilitating and is often worse when standing after a period of rest - for example when standing after rising from bed after sleep. It is also worse after walking or standing for an extended period particularly on hard surfaces. If left untreated the condition typically lasts 6 to 12 months but can last two years or more in a small percentage of patients. This time course can often be shorter with appropriate treatment.

Anatomy

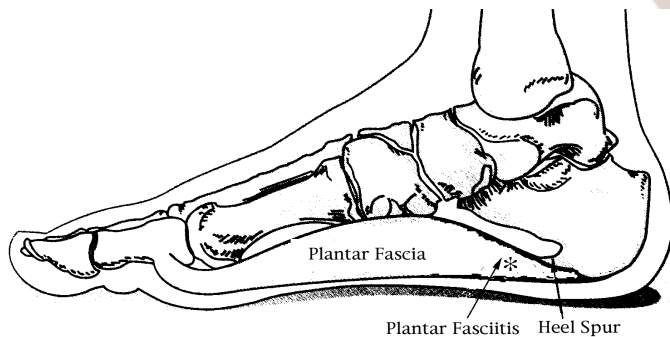
The Plantar Fascia is in the sole of the foot and is an important structure which supports the arch of the foot.

From the heel to the toes of a foot there is a thick cord of fibrous tissue, which acts like the string of a bow to support the foot's arch. This is called the plantar fascia. Whenever weight is put through the foot the plantar fascia is placed under tension.

Pathology

Fatigue failure of the fascia causes plantar fasciitis - "wear gets ahead of repair".

Repeated stretch of the fascia is like pulling on a rope. As the rope is repeatedly stretched, it fatigues and can eventually break. In the foot a repair mechanism prevents the fascia from tearing completely. With age this repair mechanism fails. In a sense, the problem in plantar fasciitis is that wear and tear overwhelms the ability of the body to repair the damage.



Tension or repeated compression of fascia causes pain.

Pain is experienced when the inflamed and partially torn fascia is stretched from the contracted state to its natural length (as in standing and walking after rest). It is also caused when this inflamed area suffers recurrent pressure (such as with standing or walking for an extended time). Nerves in close association with the fascia may be involved in the inflammatory process and contribute to the pain.

Treatment

Treatment primarily involves regular stretching.

Treatment should initially be aimed at keeping the fascia at its natural length. This is better than having it repeatedly change length and hence suffer irritation and inflammation. Therefore, the first line treatment is to stretch the fascia and keep it stretched allowing it to heal at its "natural" length.

Stretching must be done at least three times a day, with each stretching session lasting 10 minutes. Thus 30 minutes per day should be allocated to the Plantar Fasciitis Stretching Program.

The stretching program includes 3 exercises. Exercise 1 and 2 are designed to stretch the Achilles tendon, which is usually contracted in patients with this condition. Exercises 3 and 4 are designed specifically to stretch the plantar fascia. You will be taken through these exercises in the clinic by the staff of Melbourne Orthotics.

Cushion the Heel.

Along with a stretching program, a thick silicone heel pad - Viscospot orthotic (sold by Melbourne Orthotics) should be used to provide cushioning in the shoe and protect the heel. If this program is used the fascia heals and the condition typically improves over an eight to twelve week period, However complete resolution can take at least six months.

Other Options

The heel may not respond to this simple first line approach. Alternative treatment techniques are then used in addition to the stretching. These include night splints (which keep the fascia out to length overnight), ultrasound lithotripsy treatment or specially made insoles. If such techniques fail casting may be required and very occasionally, surgical release.

Surgery is rarely required.

Surgical treatment involves the releasing or cutting of the inflamed tissue and occasionally the release of nerves in the heel (the nerves which are often affected in severe cases). It is unusual to excise the bony "heel spur" often associated with this condition as it is rarely the cause of the pain and its removal increases the risks of surgery. Usually this surgery can be performed utilising a "key-hole" or endoscopic technique that is minimally invasive. Surgery is not used as a first line treatment. Results can be excellent, but there is a significant group of patients in whom it fails to improve the condition, or in whom it may even make the problem worse. Generally I recommend non-operative options first.