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Arch & Heel Pain – Plantar Fasciitis

Description

The plantar fascia is located in the sole of the foot. It is a tough fibrous band that stretches from the under surface of the heel bone and runs under the foot, fanning out to attach to the base of the toes and functions to maintain the foot arch. The medial aspect of the band (region towards the midline of the body) has a thicker and denser structure. This band can become inflamed or injured, termed plantar fasciitis. A common cause of heel pain is “heel spur syndrome”, an inflammatory condition of the plantar fascia at its attachment site into the heel bone and in severe cases, a heel spur, due to a strain or to overuse.



Incidence

The greatest incidence of plantar fasciitis is seen in middle-aged men and women. Strain is also caused in those who partake in high-impact sport, constant exercise or long hours of work duty. The overweight are also prone to plantar fasciitis because of the increased load on their feet

Symptoms

It generally starts as a dull pain in the arch or on the bottom of the heel and may progress to a sharp persistent pain. It tends to feel worse in the morning due to the sudden elongation of the plantar fascia tissue band, which has contracted during the night. As in other overuse injuries, the pain develops at the beginning of a workout, but may diminish during running, only to recur at the finish or later.

Causes

The most common cause of this condition is an overuse and stress on the fascia or pulling away from the heel bone usually associated with poor support from the bony arch of the foot. This causes an inflammation and the pain. Every step taken is an aggravation and the condition worsens.

The pulling away from the bone by the fascia causes inflammation and may lead to the development of a bone spur as new bone is laid down. The inflammation causes the pain, not the spur. Occasionally, local nerves may become sensitised.



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Factors that may cause or contribute to the development of this painful heel condition.

- Biomechanical abnormalities of the foot or lower leg
i.e. flat pronated feet, high arched rigid feet, tight calf muscles
- Tight plantar fascia
- A sudden increase in training intensity
- Inappropriate/improper shoes for the activity or foot
- Toe running, hill running
- Soft terrain, e.g. running on sand
- Age and decreased fatty heel pad
- A result of an injury
- Arthritic or other medical inflammatory condition
- Possible associated nerve entrapment

Treatment

Treatment is aimed at reducing inflammation, restoring tissue strength and flexibility and improving any biomechanical abnormality.

- Ice packs for 15-20 minutes, several times daily, especially after activity
- Contrast footbaths – warm and cold. Immerse the feet in one footbath for 2-3 minutes, then alternate to the other and repeat the process
- Stretches for the plantar fascia and calf muscle
- Massage of the heel and plantar fascia
- Well-fitting shoes with a supportive arch, heel pad and heel cup
- Weight loss
- Foot taping to reduce stress on the plantar fascia and improve foot biomechanics
- Anti inflammatory medication – oral and/or topical
- Podiatry assessment for biomechanical abnormalities requiring **orthotics**
- Physiotherapy, laser, acupuncture and shockwave therapy etc
- Cortisone injections
- Podiatric Surgical review for possible fascia release
- Podiatric Surgical review for possible nerve problem

Heel problems can take a long time to resolve. Usually, the longer it is before advice is sought, the longer resolution will take. During recovery, the best activities are non-weight bearing such as swimming and cycling. A gradual return to weight-bearing activities is advised.