

HEEL PAIN

The most common cause of heel pain is a condition called plantar fasciitis. This is when there is inflammation of the tissue that attach to the heel bone (calcaneus).

Heel pain may also be due to other causes, such as a stress fracture, tendonitis, arthritis, nerve irritation or bony cysts.

Because there are many causes, it's important to get the correct diagnosis before starting any treatment.

What Is Plantar Fasciitis?

There is a band of tissue, ie. the plantar fascia that extends from the heel to the toes. This band is important in maintaining the arch-like structure of the foot. If it becomes inflamed, pain can develop around the heel, arch or even the ball of the foot.



Causes:

The most common cause of plantar fasciitis relates to faulty structure of the foot. For example, people who have problems with their arches, either overly flat feet or high-arched feet, are more prone to developing plantar fasciitis. If the Achilles tendon, ie. the band of tissue at the back of the ankle is too tight, this can also contribute to heel pain.

Wearing non-supportive footwear on hard, flat surfaces puts abnormal strain on the plantar fascia and can also lead to plantar fasciitis. This is particularly evident when one's job requires long hours on the feet. Obesity and overuse may also contribute to plantar fasciitis.

It's often seen in runners / sportspeople who increase their activity too soon without letting the foot adapt to the extra load.

Symptoms:

The symptoms of plantar fasciitis are:

- Pain on the bottom of the heel
- Pain in the arch of the foot
- Pain that is usually worse when getting out of bed in the morning. It can become a dull ache that occurs if standing for long periods of time.
- Pain that increases over a period of months
- Swelling on the bottom of the heel

People with plantar fasciitis often describe the pain as worse when they get up in the morning or after they have been sitting for long periods of time. After a few minutes of walking, the pain decreases because walking stretches the fascia.

Diagnosis

A good history and examination usually point to the diagnosis of plantar fasciitis. It must also rule out other causes such as stress fractures or nerve entrapment.

In addition, diagnostic imaging studies, such as x-rays or other imaging modalities, may be used to distinguish the different types of heel pain. Sometimes heel spurs are found in patients with plantar fasciitis, but these are rarely a source of pain. When they are present, the condition may be diagnosed as plantar fasciitis/heel spur syndrome.

Treatment

There are a number of treatments for plantar fasciitis and most patients will get better without any form of surgery.

- **Stretching exercises.** Exercises that stretch out the calf and foot muscles help to reduce the tightness of the fascia.
- **Avoid going barefoot.** When you walk without shoes, you put undue strain and stress on your plantar fascia.
- **Ice.** Putting an ice pack on your heel for 20 minutes several times a day helps reduce inflammation.
- **Limit activities.** Cut down on extended physical activities to give your heel a rest.
- **Shoe modifications.** Wearing supportive shoes that have good arch support and a slightly raised heel reduces stress on the plantar fascia.
- **Medications.** Anti-inflammatories may be recommended for short term use only.

Further treatments on recommendation from your surgeon may include:

- **Padding, taping and strapping.** Placing pads in the shoe softens the impact of walking. Taping and strapping help support the foot and reduce strain on the fascia.
- **Orthotic devices.** Custom orthotic devices that fit into your shoe help correct the underlying structural abnormalities causing the plantar fasciitis.

- **Injection therapy.** In some cases, corticosteroid injections are used to help reduce the inflammation and relieve pain. This should not be recurrent as there can be serious complications such as rupture of the plantar fascia.
- **Night splint.** Wearing a night splint allows you to maintain an extended stretch of the plantar fascia while sleeping. This may help reduce the morning pain experienced by some patients.
- **Physical therapy.** Exercises and other physical therapy measures may be used to help provide relief.
- **Extracorporeal Shock Wave Therapy:** Newer studies are showing good results with treatment. It does however need about 10 sessions before results are seen and the pain may get worse before it gets better.
- **Platelet Rich Plasma:** Another modality which shows promising results in trials. It is expensive and painful, often needing a mild anaesthetic / sedation while administering it.
- **Surgery:** Used as a last resort. It entails removal of the spur if present and partial release of the plantar fascia.

No matter what kind of treatment you undergo for plantar fasciitis, the underlying causes that led to this condition may remain. Therefore, you will need to continue with preventive measures. Wearing supportive shoes, stretching and using custom orthotic devices are the mainstay of long-term treatment for plantar fasciitis.

References:

www.foothealthfacts.org

www.aofas.org

Pictures: Google images