

4 - Plantar Fasciitis



Consider this! Each step we take our feet absorb a force up to 5 times our body weight. Around 15 % running related injuries strike the foot.

A common condition experienced by runner's plantar fasciitis which are micro tears or inflammation of the tendons or ligaments that run from heel to toes becomes painful and you need to **STOP** running!

Symptoms of the plantar fasciitis include a gradual onset of pain under the heel which may radiate into the foot. Tenderness is usually felt under and on the inside of the heel which is initially worse first in the morning but eases as the foot warms up only to return later in the day or after exercise. Stretching the plantar fascia may be painful.

The Plantar Fascia is a broad, thick band of tissue that runs from under the heel to the front of the foot. Through overuse the fascia can become inflamed and painful at its attachment to the heel bone/calcaneus. The condition is traditionally thought to be inflammation; however this is now believed to be incorrect due to the absence of inflammatory cells within the fascia. The cause of pain is thought to be degeneration of the collagen fibres close to the attachment to the heel bone.

Plantar fasciitis is common in sports which involve running, dancing or jumping. Runners who over-pronate where their feet roll in or flatten too much are particularly at risk the plantar fascia is over stretched as the foot flattens.

Are you at Risk!

Runners with very high or low arches are vulnerable due to the type of foot type stretching the plantar fascia away from the heel bone. Extreme pronation, supination, high mileage, tight hip flexors, weak core muscles and a history or ongoing back pain can contribute.

Run on it?

It's a nagging injury and possible to run on but this will delay recovery or healing. Up to 6 months recovery is but cases, symptoms can last longer.

A common factor is tight calf muscles which lead to a prolonged or high velocity pronation or rolling in of the foot. This in turn produces repetitive over-stretching of the plantar leading to possible inflammation and thickening of the tendon. As the fascia thickens its flexibility is reduced along with strength. Other causes include either a low arch *pes planus* or a very high arched foot known as *pes cavus*.

Excessive walking in footwear which does not provide adequate **arch support** has been attributed. Footwear for plantar fasciitis should be flat, lace-up and with good arch support and cushioning. Overweight individuals are more at risk of developing plantar fasciitis due to the excess weight impacting on the foot.

Treatment of plantar fasciitis

There is no single cure, many treatments can be used to ease pain. In order to treat it effectively for the long-term, the cause of the condition must be corrected as well as treating the symptoms.

Take action now!

Rest until it is not painful. It can be very difficult to rest the foot as most people will be on their feet during the day. A taping around and along the plantar can help support the foot relieving pain and helping it rest.

Apply **ice** or **cold therapy** to help reduce pain and inflammation. Apply for 10 minutes every hour if the injury is particularly painful for the first 2 days. This can be reduced to 3 times a day as symptoms ease.

Try Towel grabbing

Place a small, lightweight towel or newspaper/paper on the floor, laid out in front of you. Sit on a chair with the feet flat on the towel - make sure there is plenty of towel in front of you to pull! Use the toes to pull the towel towards you, bit by bit. Keep the heel on the floor. Once you find this easy, it can be progressed by adding a small weight at end of towel.



Try Pencil pick-up

In a seated position, place a pencil on the floor just in front of you. Pick the pencil up using your toes. Hold it for a few seconds and repeat this 10 times.

Try Walking on tip toes and rolling

Rise up on to your tip toes. Walk forwards slowly, always controlling your balance before you take your next step. Start off walking 10-15 steps and gradually increase the distance. Also try rolling on forefoot can be done while or instead of walking and as part of warm up.



Long term PREVENTION

- Complete a daily stretch routine for foot and lower leg (calf) area.
- Good quality support arch foot insole (orthotic) providing forefoot and heel cushioning.
- Regular core (twice a week) training and conditioning for example planks, back extensions, lunges to help stabilise posture and reduce stress on the spine. This in turn reduces the transfer of load to foot.

