

Plantar Fascitis



The Injury

The Plantar fascia is a fibrous sheath that runs most of the length of the sole of the foot. It attaches between the heel bone and the bones at the base of the toes, covering the small muscles in the sole of the foot. During walking and running, as you 'toe-off', the plantar fascia becomes taut and helps the foot act as a lever to push off with force. It is one of the primary stabilising structures of the arch on the inner side of the foot.

Plantar fasciitis refers to inflammation of the Plantar fascia, usually at the point where it attaches to the heel bone. This condition is reasonably common in older individuals, where the movement in the joints of the foot has become restricted and strain on the Plantar fascia is increased. It may also occur in individuals who do a lot of standing, walking or sporting activities, usually as a result of overuse. It tends to be more common in females and in people who are overweight.

Signs & Symptoms

Pain is common over the inside of the heel and usually radiates down the inside of the sole of the foot. The pain usually occurs with activity and is also typically present in the morning when taking the first steps of the day.

Plantar fasciitis can be diagnosed by a doctor or physiotherapist, if pain is present on touching the affected area, and/or on stretching the Plantar fascia (by pulling the toes up). The diagnosis of Plantar fasciitis can be confirmed on an Ultrasound

Mechanical sound energy at a frequency of more than 20,000Hz. This can be used therapeutically to treat soft tissue injuries or diagnostically to produce an image of soft tissue injuries. scan, when the fascia has a thickened appearance. In a small number of cases of heel pain that fail to respond to normal treatment it may be necessary to get an x-ray to rule out other conditions such as a bony spur on the heel bone or a fracture of the heel bone.

Treatment

Plantar fasciitis is inflammatory in nature and the key to successful treatment is to determine what is causing the inflammation and address this problem. In most sporting individuals the cause is overuse and the most important advice is to allow adequate rest, which will allow the affected tissues time to heal.

In other cases there may be a problem with the biomechanics of the foot, contributing to the problem. The usual findings are a foot that 'over pronates', where the inner arch of the foot rolls over too much during walking and running. This can lead to tightness in the Achilles tendon and recent research has suggested that a tight Achilles tendon can increase strain on the Plantar fascia.

Conservative treatment, such as physiotherapy, aims to reduce local inflammation and address any biomechanical problems. While the Plantar fascia is still painful it may be treated with ice packs (never apply ice directly to the skin) and anti-inflammatory drugs prescribed by a doctor. Once the pain has subsided, stretching the Plantar fascia (by pulling the toes towards the shin) is effective in encouraging the tissue to regain its normal alignment.

Stiff joints around the foot and ankle can be treated using mobilisation, where the physiotherapist gently moves the joints manually to remove the stiffness and restore the normal range of movement. Conversely, there may be excessive 'pronation' and an insole that supports the inner arch of the foot may be helpful in alleviating strain on the Plantar fascia.

Taping <http://www.chiropodyuk.com/members/ne/training.html> has been shown to be an effective

treatment for Plantar fasciitis. The tape supports the Plantar fascia and removes some of the strain that can aggravate the condition. In circumstances where a physiotherapist is not always available to apply the tape job, then there is an easy to apply alternative that can effectively relieve the pain from Plantar fasciitis. It works on the same principle as the taping technique to relieve strain on the Achilles tendon and Plantar fascia.

Plantar fasciitis settles with conservative treatment in 95% of cases. However, in severe cases where heel pain is affecting normal walking then an injection with a mixture of corticosteroid Corticosteroid

A naturally occurring steroid which reduces inflammation. Synthetic corticosteroids are given as injections to treat inflammatory conditions. and local anaesthetic can be helpful. Following this injection, the patient is required to rest for a few days, then normal activities can be resumed gradually.

In persistent cases of Plantar fasciitis, that fail to respond to 6 months of conservative treatment, then surgery can be considered. In the past, surgical techniques have included removal of bony spurs from the heel bone and release of the Plantar fascia from the heel bone itself, but the results were inconsistent. These invasive surgeries often caused later problems such as nerve damage and changes to the mechanics of the foot.

A modern treatment approach for Plantar fasciitis is an ultrasound guided needle fasciotomy. This is a minimally invasive procedure where a needle is inserted into the Plantar fascia and moved back and forwards to disrupt the fibrous tissue that proliferates as a result of the chronic inflammation. Because a needle is used instead of a scalpel, and because the whole procedure is observed using an ultrasound

Ultrasound Mechanical sound energy at a frequency of more than 20,000Hz. This can be used therapeutically to treat soft tissue injuries or diagnostically to produce an image of soft tissue injuries. scanner, then there is far less danger of surgical complications. By disrupting the tight fibrous tissue the strain on the Plantar fascia is relieved and healing can take place.

Prevention

Inadequate footwear is often implicated in Plantar fasciitis. Shoes should provide adequate support for the foot. Unsuitable footwear can increase strain of the Plantar fascia and lead to the development of inflammation.

Insoles that support the arch on the inner side of the foot can be helpful for limiting excessive pronation and relieving stress on the Plantar fascia and Achilles tendon.

The North East Branch of
The

British

Chiropody and Podiatry Association.



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About

TAPING TECHNIQUE



Diary

Even when resting from sport, the Plantar fascia can be painful when walking with Plantar fasciitis. This tape technique is designed to prevent tension in this region with the aim of reducing further irritation.



Why Visit

Step 1



Find Us

First, an anchor is placed around the heel from the lateral to medial border.



Links

Step 2

Then another anchor in the opposite direction.

Step 3

The anchors are then linked by tape strips under the sole of the foot.



Step 4

Note how the Plantar fascia is bunched up in order to tape it in a shortened position.

Step 5

These straps are continued towards the toes, while maintaining the tissue in a shortened position.

Step 6

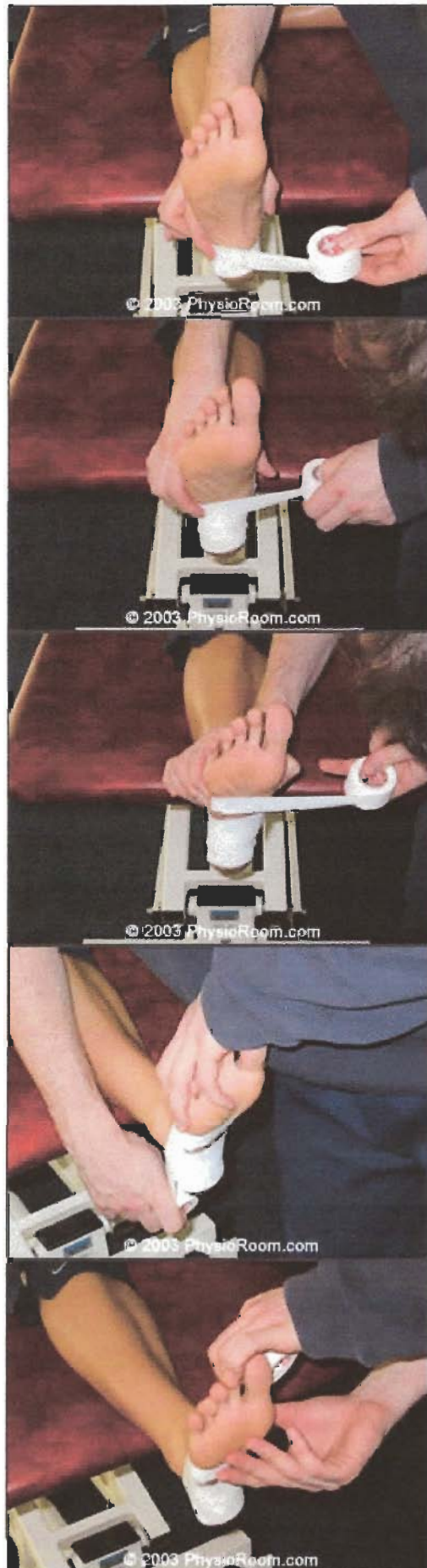
An end strap goes right round the circumference of the foot, at the point of the end of the two anchors.

Step 7

Then another anchor goes over the torn edges of the strips...

Step 8

to give a neat finish.



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