



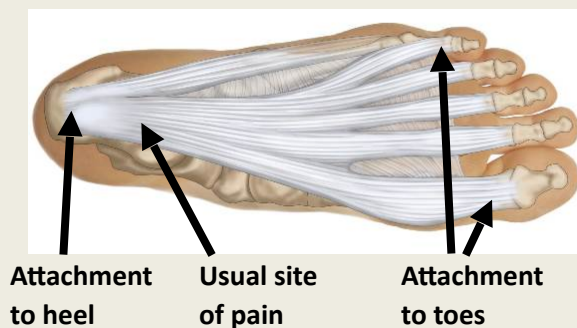
Medicine for Managers

Dr Paul Lambden BSc MB BS BDS FDSRCS MRCS LRCP DRCOG MHSM

Plantar Fasciitis

Painful feet affect most of us at some time and one of the more common problems is plantar fasciitis which results in pain under the heel. About one in ten people will suffer it at some time. It tends to resolve by itself but takes up to eighteen months to do so and recovery may be hastened by rest, heel supports, pain relief and exercises.

The plantar fascia, also known as the plantar aponeurosis, is a tough band of fibrous tissue situated beneath the skin on the sole of the foot. It stretches from the front of the heel bone (calcaneum) to the front of the foot where it splits into five parts, each part being attached to one of the toes.



It provides support for the arch of the foot, acts as a shock absorber and binds to the skin to stop the skin of the sole from becoming floppy. (an equivalent structure exists on the hands).

Inflammation of the plantar fascia is called 'plantar fasciitis' (itis = inflammation of)

The anatomy of the foot is complex and the Internet has many sources of anatomical training. One such site is the Royal National Orthopaedic Hospital, which has an eight-minute video entitled 'The Foot and Ankle' and which explains the anatomy and function using clear pictures and simple explanation.

The condition occurs in people who spend a lot of time on their feet, have recently increased the amount of exercise they take, who wear unsuitable footwear (for example without cushioning soles) and those with arthritis such as rheumatoid or ankylosing spondylitis. Other risk factors include being overweight or having flat feet.

It may be caused acutely by treading on a stone or similar structure or by stepping awkwardly and landing on the front of the heel.

It is twice as common in women and is most likely to occur between ages 40-60.

The commonest symptoms are pain and tenderness over the front of the heel.

The pain is commonly worst on first standing on the foot in the morning after a period of rest and it will ease gradually with careful exercise (although a long walk will make it worse).

Sudden stretching of the foot, as might occur when running upstairs on the toes, will exacerbate the pain. The pain often makes the sufferer limp and, if very unlucky, both feet may be affected.

It may start when the heel is exposed to unaccustomed or excessive activity and was not prepared for the increased tensile loading (stretching). The periods of pain may last from a few months to well over a year.

The diagnosis is usually clinical and is obvious from the examination but an X-ray or an ultrasound may be ordered if there is doubt about the diagnosis. An X-ray will show any bony abnormalities and the ultrasound may reveal thickening and swelling of the plantar fascia.

X-rays of the heel may reveal

a bony spur and, when identified, it may be labelled as the cause of the pain. However, it is not known for sure whether spurs cause symptoms or they may simply be incidental.



Treatment is by rest (when possible), the use of non-steroidal anti-inflammatory drugs such as ibuprofen, using gel heel pads and foot supports as cushioning in the shoes, avoidance of walking in bare feet and the use of appropriate exercises.

The exercises can be provided by physiotherapists and osteopaths. There are also many sources of information about such exercises available on the internet.

A steroid injection into the plantar fascia may be given if all else fails but the injection may be extremely painful and does not always cure the problem.

Surgery is occasionally considered in very protracted cases with severe symptoms where a procedure known as plantar fascia release is carried out.

The technique involves detaching the fascia from the calcaneum (heel bone). A bony spur may also be removed. It sometimes does not work and there may be blood vessel or nerve complications.

Troublesome though the problem is, however, it does generally resolve in between four and eighteen months.

To avoid the symptoms it may help to stretch the Achilles tendon before exercise, avoid exercising on hard surfaces and (there is no easy way to say this), if you are too large, lose weight.

paullambden@compuserve.com