

# A TROUBLE-SOME FOOT INJURY

**Plantar fasciitis is a condition that causes foot pain. Pain is usually focussed in the heel region, but may spread a short distance onto the sole and instep.**

Pain usually develops gradually and initially doesn't limit day-to-day activities or sport. However, it can build up to the point where getting out of bed in the mornings is a very painful experience. This severe pain usually settles with a bit of early-morning hobbling around, but then becomes troublesome when walking and running, and is particularly limiting when pushing off quickly through the foot.

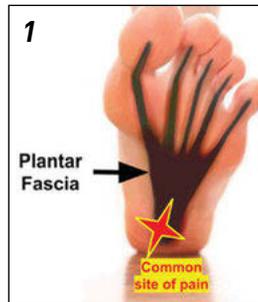
Getting rid of plantar fascia pain can be a lengthy business. Many treatment approaches have been advocated, but no

single one stands out. However, the most popular feature of management strategies is stretching.

This can be done in a number of ways and when performed consistently over several months can produce significant pain reductions. The classic way of stretching the plantar fascia is to extend the toes whilst pushing the knee over the flat foot (see fig 2). This 'stretching' approach has been proven to reduce pain in at least a couple of studies, but how it works is open to debate. When you consider that the plantar fascia is made of very tough connective tissue, you realise that this 'stretching' approach almost certainly does not physically elongate the plantar fascia. Bearing in mind that the job of the plantar fascia is to provide stability to the foot, it probably wouldn't be a good idea to stretch the thing out - even if you could.

So, if these exercises don't lengthen the plantar fascia, but they reduce pain, what mechanisms are in play? There isn't a definitive answer to this, but research has shown that exercises with a 'strengthening' element also reduce plantar fascia pain and do so in a shorter time frame than stretching alone (see fig 3).

More research will be needed before we know what the ideal combination of exercises is to reduce and to eliminate plantar fascia pain.



**1.** The plantar fascia is a tough band of tissue that is attached to the bottom of the heel bone and then spreads down the sole of the foot to attach into the toes. The plantar fascia supports the instep of the foot and acts like a spring, being tensioned when the toes are pushed into the floor as the heel lifts and then releasing its elastic energy as the body is propelled forwards



**2.** 10 10-second holds three times a day have been shown to reduce plantar fascia pain



**3 & 4.** A rolled towel pushes the toes into an extended position as the calf is used to lift body weight. This increases the load on the plantar fascia

