



Treatments of **E**xercise **A**nd **O**rthotic devices for heel pain

Plantar Heel Pain

Information and advice on self-management

This page is intentionally left blank

What is plantar heel pain?

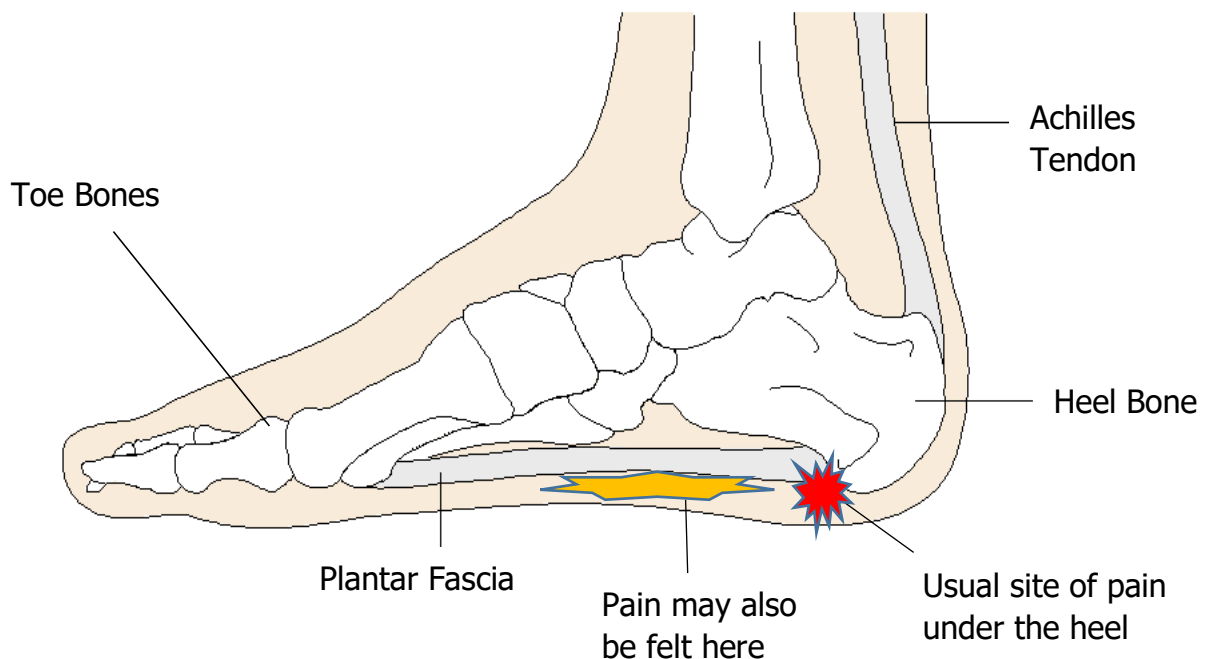
Plantar heel pain refers to tenderness and pain under your heel. Plantar heel pain is sometimes caused by and often called plantar fasciitis.

What is the plantar fascia?

The plantar fascia is a tough and flexible band of tissue that runs under the sole of the foot. It connects the heel bone with the bones of the toes, and acts as a kind of shock absorber to the foot.

What are the symptoms of plantar heel pain and plantar fasciitis?

The symptoms tend to be pain under the heel which can also spread throughout the length of the foot. The pain can be most severe on activity after prolonged rest, for example, taking the first steps after getting out of bed in the morning, and may be made worse by a long walk or being on your feet for a while. Sometimes the pain can be constant. These symptoms may also affect your mental health and wellbeing.



What causes plantar heel pain/ plantar fasciitis?

The exact cause is not known. It is possible that the cause is too much load or stress on the plantar fascia which results in pain within the plantar fascia and surrounding tissues.

Some situations which may be linked to the cause are:

- If you are on your feet a lot, for example walking, standing, or running.
- If you have recently started an activity which you are not used to or started exercising on a different surface, increased running/walking intensity or distances.
- If you have been wearing shoes with poor cushioning, that are worn out and offer little support or are very stiff.
- If you are overweight, this will put extra strain on your heel.
- If you have tight calf muscles or a tight Achilles tendon (the big tendon at the bottom of your calf muscle just above your heel). This can affect your ability to bend your ankle.
- If you have altered foot posture for instance being flat-footed or having high foot arches or an abnormal walking pattern (for instance due to pain in other joints) can put added stress on the plantar fascia.

How long will it last?

This is difficult to say and often depends on how long you have had it for already and whether you are able to avoid the activities that make it worse. It can take weeks and sometimes months to fully resolve.

How common is heel pain /plantar fasciitis?

Plantar fasciitis is very common. Around 1 in 10 people will get plantar fasciitis at some time in their life. It is most common in people aged 40-60 years old but can occur at any age.

How is it diagnosed?

Your health care professional can usually diagnose plantar fasciitis just by talking to you and examining your foot. Very rarely, additional tests are needed if the diagnosis is uncertain or if another cause needs to be ruled out.

What can I do to help my heel pain /plantar fasciitis myself?

There are several ways that you can help yourself if you have heel pain. The best way to resolve heel pain is by doing a few of these things at once.

Avoid weight bearing for long periods

Try to avoid high impact activities such as running or jumping. Reduce prolonged periods of walking or standing. Short rests with gentle walking and the exercises described below are fine you, should aim for a balance between rest and activity.

Check your Footwear

Wear well-fitted shoes that support and cushion your feet and heel, trainers are particularly useful. Avoid open sandals and old or worn shoes that may not give a good cushion to your heel. Avoid walking barefoot especially on hard surfaces. Regularly replace shoes used for walking or trainers used for running to ensure good support.

Make sure your slippers fit properly

Many people prefer to wear slippers in the house however the soles of slippers often lack adequate support, cushioning and grip. Like outdoor shoes slippers should fit properly and shouldn't be too loose. Backless slippers should be avoided. The features of the ideal slipper are generally the same as ideal shoes.

Arch supports

There is some evidence that foot arch supports which you can buy from your local chemist may provide relief for heel pain. These supports work by reducing the amount of load and stress on the plantar fascia and they work best if you wear them in your shoes all the time.

Pain relief

Pain relief which can be purchased over the counter may ease the pain. Sometimes anti-inflammatory medicines such as ibuprofen are also useful. Speak to your pharmacist about what is best for you and don't use any pain relief for more than 2 weeks without seeking medical advice. Some people find that rubbing a cream or gel that contains an anti-inflammatory medicine on to their heel is helpful. You should consult your pharmacist about this too.

An ice pack (such as a bag of frozen peas wrapped in a tea towel) held to your foot for 15-20 minutes may also help to relieve pain.

Weight loss

People often experience plantar heel pain after an increase in weight, and those who are overweight are at greater risk of having plantar heel pain. Reducing weight can help alleviate the pressure on your heel, which will reduce your pain. It can be difficult for some people to reduce their weight, so speaking with a GP maybe helpful to get proper advice.

Stretching Exercises for the plantar fascia and Achilles tendon

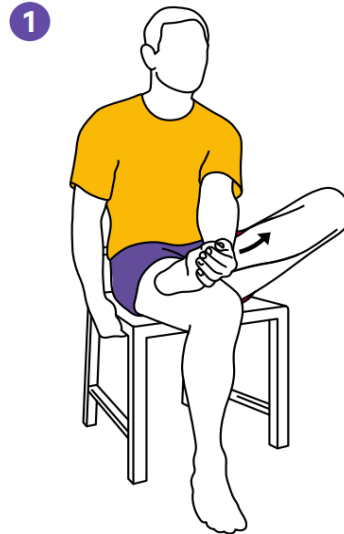
Stretching is an important treatment for plantar heel pain, and has been shown to be effective. Try to perform the exercises below at least twice a day, every day.

Many people find the following exercises helpful. If you need to, adjust the position so that it's comfortable. Try to do these exercises regularly.

Do each one a few times to start with, to get used to them, and gradually increase how much you do.

1. Sitting plantar fascia stretch

Sit down and cross one foot over your knee. Grab the base of your toes and pull them back towards your body until you feel a comfortable stretch. Hold for 15 to 20 seconds and repeat 3 times.



2. Plantar fascia stretch

Sit down and rest the arch of your foot on a round object, such as a tin of beans. Roll the arch in all directions for a few minutes. Repeat this exercise at least twice a day.



3. Achilles tendon and plantar fascia stretch

Loop a towel around the ball of your foot and pull your toes towards your body, keeping your knee straight. Hold for 30 seconds. Repeat 3 times on each foot.

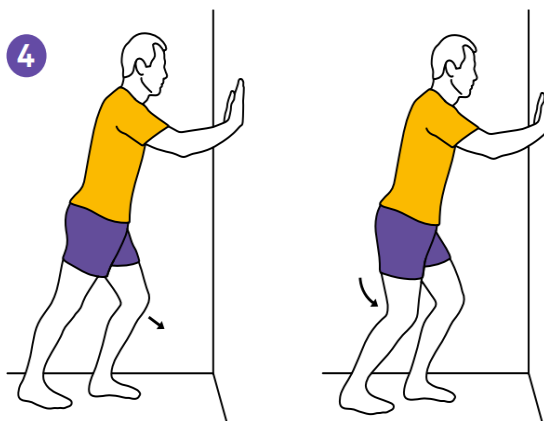


4. Wall push

a) Facing a wall, put both hands on the wall at shoulder height and place one foot in front of the other. The front foot should be approximately 30 cm (12 inches) from the wall.

With the front knee bent and the back knee straight, bend the front knee towards the wall until the calf in your back leg feels tight. Relax and repeat 10 times.

b) Repeat a) but bring the back foot forward a little, so that the back knee is slightly bent. Repeat this 10 times.



5. Stair stretches for Achilles tendon and plantar fascia

Holding the stair-rail for support, with legs slightly apart, position the feet so that both heels are off the end of the step. Lower the heels, keeping the knees straight, until a tightening is felt in the calf. Hold this position for 20–60 seconds and then raise the heels back to neutral. Repeat 6 times, at least twice a day.

5



If any of the exercises in this booklet make your pain worse STOP and if the increased pain continues for a few days, seek advice from your GP. If you feel that your condition is deteriorating, and you have persevered with the advice and exercise given in this leaflet for 8 weeks you should seek further medical advice from your general practitioner (GP).

Where can I find out more?

Below are some addresses of organisations that provide some helpful advice for people who have plantar heel pain.

Versus Arthritis

Copeman House
St Mary's Court
St Mary's Gate
Chesterfield
Derbyshire
S41 7TD
Tel: +44 (0) 300 790 0400
enquiries@versusarthritis.org

NHS choices web site

<http://www.nhs.uk/Conditions/heel-pain/Pages/Introduction.aspx>

Royal College of Podiatry

Quartz House
207 Providence Square
Mill Street
London SE1 2EW
<https://cop.org.uk/>

Chartered Society of Physiotherapy (CSP)

3rd Floor South, Chancery Exchange,
10 Furnival Street
London,
EC4A 1AB

Further information, exercise and some useful videos about the stretching exercises can be found at the CSP website

<https://www.csp.org.uk/>

Some information in this booklet has been reproduced by kind permission of Versus Arthritis www.versusarthritis.org – first published in *Hands on series 5 No2: Plantar fasciitis and heel pain* by Ross Duff

If you have any further questions about this self-management advice booklet, or about the trial in general, please contact the TREADON trial team during office hours on 01782 732950 or email ctu.treadon@keele.ac.uk

Keele Clinical Trials Unit (CTU)

School of Medicine
Keele University
Staffordshire
ST5 5BG
Tel: 01782 732950

This research is funded by the NIHR Health Technology Assessment Programme (NIHR 131638). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

FUNDED BY
NIHR | National Institute for
Health and Care Research