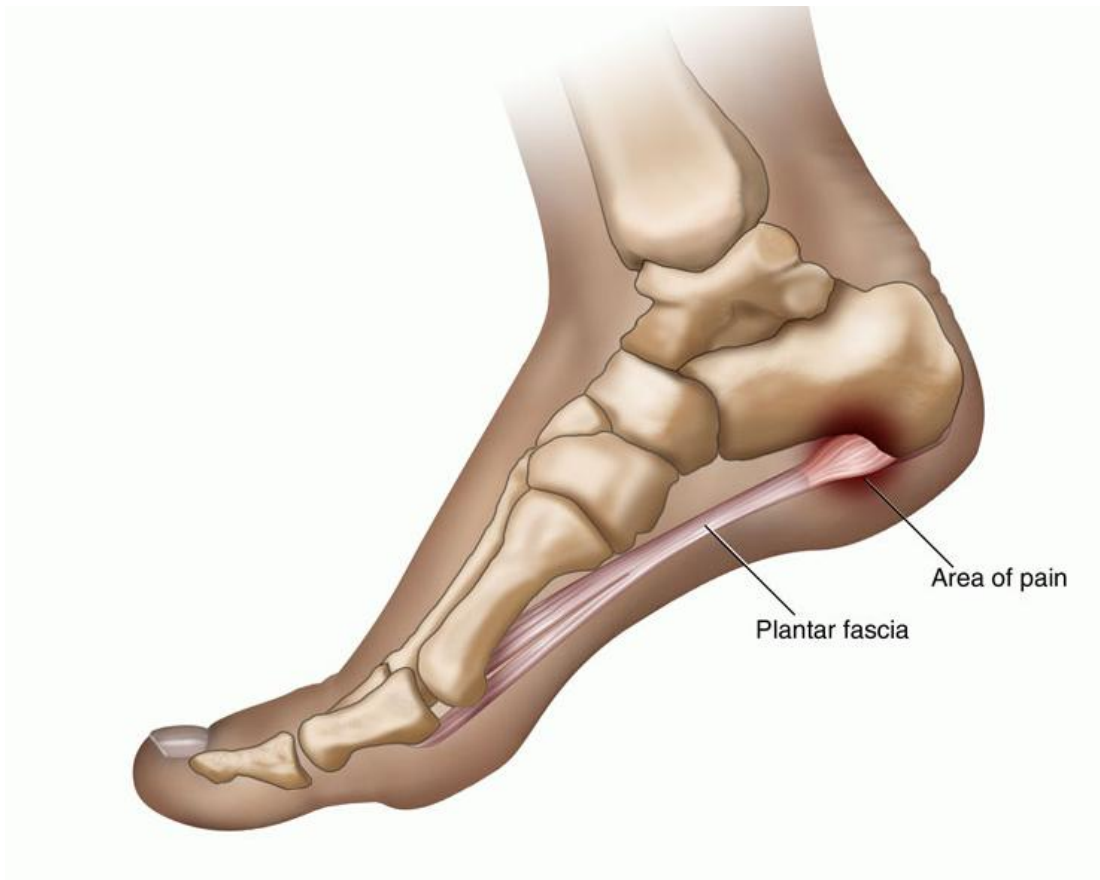


## Plantar Fasciitis



### What is plantar fasciitis?

Plantar fasciitis means inflammation of your plantar fascia, a strong band of tissue that stretches from your heel to your middle foot bones. It supports the arch of your foot and also acts as a shock absorber in your foot.

## How common is plantar fasciitis?

Plantar fasciitis is common. Around 1 in 10 people will get plantar fasciitis at some time in their life. It is most common in people between the ages of 40 to 60 years. However, it can occur at any age. It is twice as common in women as men. It is also common in athletes.

## How does it occur?

Repeated small injuries to the fascia (with or without inflammation) are thought to be the cause of plantar fasciitis. The injury is usually near to where the plantar fascia attaches to your heel bone. You are more likely to injure your plantar fascia in certain situations. For example:

- If you are on your feet for a lot of the time, or if you do lots of walking, running, standing, etc, when you are not used to it. Also, people with a sedentary lifestyle are more prone to plantar fasciitis.
- If you have recently started exercising on a different surface. For example, running on the road instead of a track.
- If you have been wearing shoes with poor cushioning or arch support.
- If you are overweight, this will put extra strain on your heel.
- If there is overuse or sudden stretching of your sole.
- If you have a tight Achilles tendon (the big tendon at the bottom of your calf muscles above your heel). This can affect your ability to flex your ankle and make you more likely to damage your plantar fascia.

Often there is no apparent cause for plantar fasciitis, particularly in older people. A common wrong belief is that the pain is due to a bony growth or 'spur' coming from the heel bone. Many people have a bony spur of the heel bone but not everyone with this gets plantar fasciitis.

## What are the symptoms?

- The main symptom of plantar fasciitis is heel pain when you walk.
- You may also feel pain when you stand and even when you are resting.
- The pain typically occurs first thing in the morning after you get out of bed, when your foot is placed flat on the floor.
- The pain usually lessens with more walking, but you may have it again after periods of rest.

The pain occurs because you are stretching the plantar fascia. You may feel no pain when you are sleeping because the position of your feet during rest allows the fascia to shorten and relax.

## How is it diagnosed?

Your doctor can usually diagnose plantar fasciitis just by talking to you and examining your feet.

## How is it treated?

- Give your painful heel as much rest as possible. Avoid running, excess walking or standing, and undue stretching of your sole.
- Painkillers such as paracetamol will often ease the pain. Anti-inflammatory medicines such as ibuprofen are also useful. Some people find that rubbing a cream or gel that contains an anti-inflammatory medicine on to their heel is helpful.
- An ice pack (such as a bag of frozen peas wrapped in a tea towel) and held to your foot for 10-15 minutes may also help to relieve pain. **(Do not put ice directly next to skin as it may cause ice burn.)**
- Try to cushion your foot. You can do this by wearing trainers, even at work, for a while.
- You can buy various pads and shoe inserts to cushion the heel and support the arch of your foot. These work best if you put them in your shoes at all times. The aim is to raise your heel by about 1 cm. If your heel is tender, cut a small hole in the heel pad at the site of the tender spot. This means that the tender part of your heel will not touch anything inside your shoe. Place the inserts/pads in both shoes, even if you only have pain in one foot.
- Lose weight if needed.
- A night splint may be recommended. This will keep the plantar fascia stretched while you are sleeping.
- Regular stretching exercises (see below).
- Physiotherapy for additional treatments may be recommended.
- A steroid (cortisone) injection is sometimes tried. It may relieve the pain in some people for several weeks but does not always cure the problem. Steroid injections do carry some risks including (rarely) rupture of the plantar fascia.

## Rehabilitation Exercises

Regular, gentle stretching of your Achilles tendon and plantar fascia may help to ease your symptoms.

Also, when you are asleep overnight, your plantar fascia tends to tighten up so in the morning you could massage your foot with anti-inflammatory gel and perform a towel stretch and a frozen can roll before getting out of bed – this reduces the pain experienced when stepping out of bed first thing.

If the exercises make the pain worse then reduce the number of times you do the exercises. **If at any time your symptoms change or worsen you must stop any exercises / self-management and consult your doctor.**

### Frozen can roll:

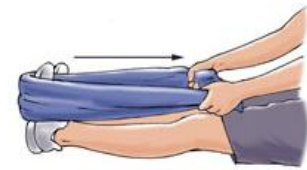
Roll your bare injured foot back and forth from your heel to your mid-arch over a frozen juice can. Repeat for 3 to 5 minutes. This exercise is particularly helpful if done first thing in the morning.



Frozen can roll

### Towel stretch:

Sit on a hard surface with one leg stretched out in front of you. Loop a towel around your toes and the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.



Towel stretch



Standing calf stretch

### Standing calf stretch:

Facing a wall put your hands against the wall at about eye level. Keep one leg back with the heel on the floor, and the other leg forward. Turn your back foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times and then switch the position of your legs and repeat the exercise 3 times.

### **Sitting plantar fascia stretch:**

Sit in a chair and cross one foot over your other knee. Grab the base of your toes and pull them back toward your leg until you feel a comfortable stretch. Hold 15 seconds and repeat 3 times.



Sitting plantar fascia stretch

### **Achilles stretch:**

Stand with the ball of one foot on a stair. Reach for the bottom step with your heel until you feel a stretch in the arch of your foot. Hold this position for 15 to 30 seconds and then relax. Repeat 3 times.



Achilles stretch

## **How long will the effects last?**

You may find that the pain is sometimes worse and sometimes better over time. If you get treatment soon after you notice the pain, the symptoms should stop after several weeks. If, however, you have had plantar fasciitis for a long time, it may take many weeks to months for the pain to go away.

## **How can I prevent plantar fasciitis?**

There are certain things that you can do to try to prevent plantar fasciitis, especially if you have had it before.

These include:

- Regularly changing trainers used for running or walking.
- Wearing shoes with good cushioning in the heels and good arch support.
- Losing weight if you are overweight.
- Regularly stretching the plantar fascia and Achilles tendon, especially before exercise.
- Avoiding exercising on hard surfaces.

## References

Produced with cooperation from Buckinghamshire Healthcare NHS Trust and Musculoskeletal Integrated Care (MusIC) Service

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