

Plantarfasciopathy (heel pain)

Information for patients

This leaflet has simple information and advice on how to manage your plantarfasciopathy. If you have any queries or concerns please contact your GP.

What is plantarfasciopathy?

The plantar fascia is a band of thick fibrous tissue that runs from the heel bone (calcaneus) along the arch of the foot towards the toes. It helps maintain the arch of the foot. Plantarfasciopathy is a painful inflammatory condition of the plantar fascia which can lead to heel and arch pain.

Mechanism of injury

This type of injury is often sustained from repeated trauma to the plantar fascia. This can result in a change of the structure in the plantar fascia, which means it is not as effective at its role and can cause pain. Risk factors include flat feet, high arches in feet, wearing high heels, excessive running, jumping or walking, and being overweight.

Symptoms

You are likely to develop discomfort on the sole and arch of your foot, and it is likely to be painful to touch. You may notice stiffness and pain particularly in the morning which gets better after a few steps. Pain will also likely be present when you climb stairs, stand on your tip-toes, standing for long periods or at the beginning of exercise. Although pain will be present during these activities you may find it slowly improves when you continue to complete these tasks.

Management

- Ice: a cold pack (ice pack or frozen peas wrapped in a damp towel) can provide short-term pain relief. Apply this to the sore area for up to 15 minutes, up to four times a day, ensuring the ice is never in direct contact with the skin.
- Relative rest: reduce activities that are making your symptoms worse, for example, the duration of time you spend on your feet.
- Painkillers: pain relief can help manage the discomfort in the short term. Normally simple painkillers bought from a pharmacist will work. If you have any questions please speak to a pharmacist or GP.

- Footwear: using supportive footwear with good arch support can help reduce the pain in the early stages. You may benefit from having insoles in your shoes to increase your arch support.
- Exercise: you should complete specific exercises that aim to slowly increase the strength of the plantar fascia, this will assist in the healing process and expedite your return to function.

Follow-up

You do not routinely require physiotherapy for this type of injury. Most people find they improve with time and simple exercises. If your pain does not improve after 6 to 12 weeks then you may benefit from physiotherapy. We recommend you contact your GP to refer you to your local physiotherapy department.

Healing

This type of injury can take approximately 6 to 9 months to resolve.

Please follow the rehabilitation plan shown below. Everyone is different and therefore the rate of healing will vary, so you may find that there is a variation with your progress of the rehabilitation plan. It is also normal to have flare ups and therefore regress to the previous stage.

Weeks since injury	Rehabilitation plan
0 to 2	✓ Use ice and elevation to help swelling
weeks	✓ Begin the 'Stage one exercises' on page 3
	✓ Follow the management advice as per above
2 to 6 weeks	✓ Once your pain has begun to settle, start the exercises below labelled 'Stage two exercises'.
6 to 12 weeks	✓ Once you are able to complete 'Stage two exercises' then progress onto the next stage. You may be able to progress onto these earlier than 6 weeks if your pain has reduced, sometimes it can take longer than 6 weeks to progress.
12 to 24 weeks	✓ Once you are able to complete 'Stage three exercises' and you would like to progress to jogging and running activities, progress to 'Stage four exercises'
	✓ You may be able to progress onto these earlier than 12 weeks if your pain has reduced, sometimes it can take longer than 12 weeks to progress.
	✓ When you can complete the 'Stage four exercises' without any discomfort you can gradually return to jogging. Starting off at a short distance and a slow speed, gradually increasing your distance without increase the speed.

Initial advice

Rest and elevation:

Try to rest the foot for the first 24 to 72 hours to allow the early stage of healing to begin. Raise your ankle above the level of your hips to reduce swelling. You can use pillows or a stool to keep your foot up.

Early movement and exercise:

Early movement of the ankle and foot is important to promote circulation and reduce the pain and discomfort within your foot.

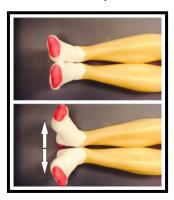
Stage one (3 to 4 times a day)

Ankle and foot range of movement exercises. Repeat these 10 times each.

- 1. Point your foot up and down within a comfortable range of movement.
- 2. Make circles with your foot in one direction and then change direction.
- 3. With your heels together move your toes apart as shown in the picture.







Ankle stretch:





- 1. Sit with your leg straight out in front of you. Put a towel/bandage around your foot and pull it towards you.
- 2. Stand on a step with the front of your foot on the edge. Lower your heel down slowly and maintain that position.
- 3. Feel a stretch in the back of your calf. Hold this for up to 30 seconds and repeat 3 times.

Seated calf raise:



Position yourself sitting on a chair with your feet flat on the floor. Slowly raise your heels up off the floor so you are now on your tip toes. Then gradually lower your heels back down so your feet are flat on the ground.

Initially complete this 8 to 14 times, as this becomes less painful and easier you can then complete this up to 20 times.

Stage two exercises

Once you can easily complete the above exercises with minimal discomfort then move onto the exercises below.

Balance:



Level 1: Stand holding onto a chair or firm surface. Practice standing on your previously injured ankle for up to 30 seconds. Once you have achieved this move to level 2.

Level 2: Once standing on one leg attempt to release your grip on the chair/ surface and hold for up to 30 seconds. Once you have achieved this move to level 3.

Level 3: Once standing freely on one leg without support you can attempt to close your eyes for up to 30 seconds

Calf raises:



Level 1: Stand holding onto a chair or firm surface. Practice standing on your tip toes by lifting your heel off the ground. Complete this 12 times and three times a day. Once you have achieved this move to level 2.

Level 2: Stand with your heels off the edge of a step and your forefoot firmly on the step. Slowly lower your heels down and then up so you are on to your tip toes. Complete this 12 times and three times a day. Once you have achieved this move to level 2.

Toe flexor stretch:



Stand facing a wall with your affected foots toe up against the wall whilst your foot is flat on the floor. You should start to feel a stretch in the arch of your foot, to increase the stretch slowly bring your knee forwards whilst keeping your foot flat on the floor.

Hold for 30 seconds and repeat 6 to 8 times. This should be completed on both feet so you are able to feel the difference between the two.

Intrinsic foot squeeze





Position yourself in standing with a small piece of tissue under your toes. Slowly try to pick up the piece of tissue with your toes, hold for 5 seconds, then relax.

Repeat 8 to 12 times, 3 times a day.

Stage three exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Single leg calf raises:



Level 1: Stand with one foot on the floor whilst holding onto a chair or firm surface. Practice standing on your tiptoes by lifting your heel off the ground. Complete 12 times and three times a day, repeat with the other foot. Once you have achieved this move to level 2.

Level 2: Stand with one foot on a step, with your heel off the edge of a step and your forefoot firmly on the step. Slowly lower your heel down and then up so you are on to your tiptoes. Complete this 12 times and three times a day, repeat with the other foot.

Calf raise with toe elevated:



Stand holding onto a chair or firm surface. Stand with a small gap between your feet, and a small object under your big toe. Practice standing on your tip toes by lifting your heel off the ground. Complete this 12 times and three times a day.

Having your big toe raised slightly up will increase the load onto the plantar fascia

Stage four exercises

Once you can easily complete the above exercises without discomfort then move onto the exercises below.

Jumping:





Level 1: Position yourself on a firm surface with your feet shoulder width apart. Practice jumping on the spot, landing softly and quietly to increase your ankle control.

Complete this 8 to 12 times for three sets, every other day. Once you have achieved this with minimal/nil discomfort then move to level 2.





Level 2: Position yourself on a firm surface, standing on one foot. Practice hopping on the spot, landing softly and quietly to increase your ankle control.

Complete this for 30 to 60 seconds for three sets, every other day. Repeat with the other foot. Once you have achieved this with minimal or no discomfort then move to level 2.

Level 3: Position yourself on a firm surface, standing on one foot. Practice hopping forwards and then backwards, landing softly and quietly to increase your ankle control. Complete this for 30 to 60 seconds for three sets, every other day. Repeat with the other foot. Once you have achieved this with minimal/nil discomfort you can then practice hopping side to side.

Sharing your information

We have teamed up with Guy's and St Thomas' Hospitals in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas'. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. The PALS office is located on the ground floor of the Hambleden Wing, near the main entrance on Bessemer Road - staff will be happy to direct you.

PALS at King's College Hospital, Denmark Hill, London SE5 9RS

Tel: 020 3299 3601

Email: kch-tr.palsdh@nhs.net

You can also contact us by using our online form at www.kch.nhs.uk/contact/pals

If you would like the information in this leaflet in a different language or format, please contact PALS on 020 3299 1844.