Royal Surrey
County Hospital
NHS Foundation Trust

Plantar Fasciitis

Physiotherapy Department

Patient information leaflet

Name of patient:

Date:

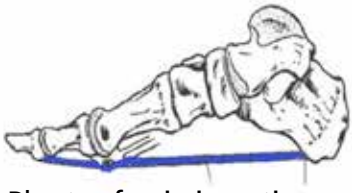
Name of Physiotherapist:

Telephone: 01483 464153

This leaflet has been designed to provide information about the condition plantar fasciitis and guidance in its treatment. It is not exhaustive and you should have a full assessment by a physiotherapist who will then devise an appropriate treatment programme with you.

What is the plantar fascia?

The plantar fascia is the band of connective tissue (a ligament-like tissue) on the underside of your foot. It extends from the heel to the toes and acts to support the joints and muscles on the sole of the foot giving your foot its arched shape (like a rope holding a ladder).



Plantar fascia insertion

What is plantar fasciitis?

Plantar fasciitis is a degenerative condition of the plantar fascia.

What are the signs and symptoms?

- Pain under the heel and along the arch of the foot
- Symptoms are normally worse first thing in the morning or after long periods of non-weight bearing (i.e.:changing from sitting to standing)
- Pain eases after a few minutes of walking and worsens throughout the day
- Pain is increased by walking barefoot

What are the risk factors of developing plantar fasciitis?

- Shoes that have stiff soles, are too flat or too wide for your feet or do not have adequate support
- Running too fast for the present strength of your plantar fascia
- Not allowing enough time to recover between high impact workouts
- Poor foot posture
- Tight calf muscles
- Altered foot biomechanics such as high or low arches, bunions
- Being overweight

These factors can then increase the force placed on the fascia, which may then become irritated and consequently degenerate. This causes pain anywhere along the arch of the foot, although it is most common near its attachment to the heel bone.

What can I you do?

Pain relief:

1. The best possible treatment for this condition is to rest. Your physiotherapist may give you crutches and these should be used as recommended. Do not carry out any unnecessary walking or running until advised by your physiotherapist.

2. Take painkillers as instructed by your GP.

Advice and treatment:

1. Wear comfortable padded slippers as soon as you get out of bed in the morning or in the night as this is the time when the plantar fascia is most susceptible to irritation.

2. Before getting up in the morning, massage the bottom of your foot with your big toe pulled upwards in order to warm up the muscles and stretch your plantar fascia.

3. Gel heel cups can be bought from pharmacies which will aid shock absorption. Your physiotherapist may refer you to our surgical appliances department for orthotics. If you have already had these fitted, please bring them in for inspection.

4. Ensure you have supportive, well-cushioned trainers for sporting activities.

5. Being overweight can aggravate the condition as it places extra force on the plantar fascia. Using non-weight bearing activities such as swimming and cycling can help.

6. Night splints may be of benefit to maintain the length of the plantar fascia overnight. Your Physiotherapist will discuss these with you. They should be worn for 1-3 months to gain improvement in symptoms.

7. **The most important evidenced-based treatment is to stretch the calf muscles and plantar fascia to reduce tightness of the plantar fascia. These must be done regularly every day and for a period of 3-4 months for you to fully benefit from them.**

☐ 1a. Gastrocnemius (superficial calf muscle) stretch

This is a standard stretch, however needs to be held for 3 minutes, preferably every 3 hours therefore you may find it less convenient on a busy day. You may also compensate by hyperextending your back.

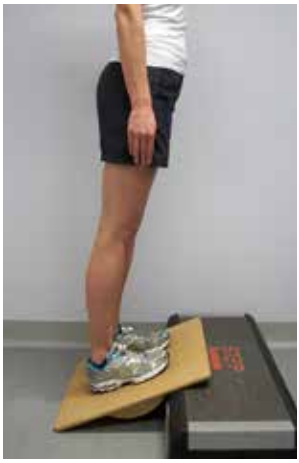
a. Lean against a wall with your _____ foot in front of your _____ . Ensure both feet are pointing forwards.

Bend your front knee leaning your body forward keeping your back leg straight and your heel on floor. The stretch is felt in the calf.

Hold for 3 minutes

Repeat at least 3 times a day or preferably every 3 hours.

☐ 1b. Alternate Gastrocnemius stretch.



This stretch is a safer option for a similar stretch off the edge of the step. You can incorporate it into your daily schedule/chores i.e: when brushing teeth, cooking, ironing etc.

Stand on an incline (a board placed against the step) or a handmade wedge/slope.

Keep your back muscles relaxed and posture straight. You should feel a gentle stretch, usually just under the knee. If your incline is too steep, you will lose balance and strain your calf muscles or aggravate your knee joint.

Hold for 3 minutes

Repeat at least 3 times a day however every 3 hours is recommended in the first 6 weeks

Adjustable incline, plastic boards are available to purchase from our Physiotherapy department or through on-line websites.

☐ **2a. Soleus (deep calf muscle) stretch**

a. Lean against a wall with your _____ foot in front of the _____. Ensure both feet are pointing forwards. Bend both your knees leaning your body forward and keep your heel on the floor. The stretch is felt in the middle half of the calf.

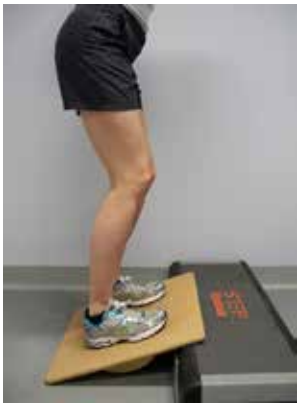
Hold for 30 seconds

Repeat 3 times, 3 times a day

☐ **2b. An alternative of this exercise is standing on the incline board as for the previous stretch.**

Hold for 30 seconds

Repeat 3 times, 3 times a day



You can combine a chosen exercise **1 & 2** by stretching Gastrocnemius for 1 minute, then Soleus for 30 seconds and repeating this 3 times.

☐ **3. Plantar Fascia stretch**

a. Place the underside of your toes of the _____foot against the wall keeping the sole of your foot on the ground. Bend your knee to the wall. The stretch is felt on the underside of your foot.

Hold for 30 seconds

Repeat 5 times, 3 times a day

☐ b. An alternative to this stretch is crossing your affected leg over the unaffected leg and using your hands to stretch the plantar fascia.

Hold for 30 seconds

Repeat 5 times, 3 times a day

☐ **4. A combination of Calf and Hamstrings muscles stretch is shown below.**

Hamstrings muscles may often be tight when calf muscles are tight.

Do not attempt this exercise if you have back pain.

Stand on an incline board placed in front of a table/worktop or against stairs.

Bend at the hips; rest your hands on any of the above mention support, keep your back straight. Feel the stretch throughout the back of your legs.

Hold for no longer than 30 seconds

Repeat 3 times, 3 times a day

This stretch is similar to a 'Downward dog' yoga pose

If your Soleus muscle is of a good length (your physiotherapist may tell you this) you can combine exercise **1b** & **4** by stretching Gastrocnemius for 1 minute, then Hamstrings for 30 seconds and repeating this 3 times. Finish whole stretch with 30 seconds Soleus stretch (**2b**).

If the above treatment options do not relieve your pain within 3 months of regular stretching it may be necessary for you to be referred to a consultant.

References

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Notes

Contact details

If you have any concerns or questions please contact the Physiotherapy Department on

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PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

Past review date: June 2017
Future review date: June 2020
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PIN170615–1266