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An integrated MSK service for Mid-Nottinghamshire

Nottinghamshire Integrated Care System

Heel Pain (Plantar Fasciitis)

Information for Patients with Heel & Foot Pain



Information in this booklet is intended to be used as a guide. It gives you an idea about how *Heel & Foot Pain* can be managed. However, you should remember that every case is different, and symptoms and management can vary from person to person.

Heel & Foot Pain

Heel & Foot Pain, sometimes known as plantar fasciitis, is typically pain under your heel and sole of your foot. It is often caused by increased loading of the foot by doing more standing, walking or physical activity than your foot is used to. It can also occur when your weight has increased, and the foot has not adapted.

Heel & Foot Pain can also be caused by your Plantar Fascia, and its ability to handle increased load, over time. There are many things you can try and do to help your pain and symptoms that have been shown to be effective. However, for some patients, symptoms can be stubborn, and it can take time to respond and improve.

What Is Heel & Foot Pain?

The *Plantar Fascia* is a strong fibrous band of tissue that runs under the foot. It connects the heel bone to the bones of the toes and supports the arch of the foot. Most cases of heel pain are caused when the *Plantar Fascia*, becomes inflamed, irritated and thickened. This can cause *Heel & Foot Pain*.

Plantar Fasciitis, Plantar Fasciopathy and Plantar Heel Pain are all terms that are used to describe pain around the heel and foot. They are words used to describe inflammation, irritation and thickening of the *Plantar Fascia*.

It is often caused by an increase in load on the foot, for example, starting a new job or hobby that involves more weight bearing on your feet. The *Plantar Fascia* struggles to handle this load, and this can lead to pain and inflammation.

It can also be caused by a reduction in the *Plantar Fascia's* ability to deal with the load or weight-bearing which can be affected by stress, age or hormone levels.

There is no recent research to suggest bony heel spurs (often seen on X-Rays) cause plantar heel pain.

Why me?

Heel & Foot Pain is a common condition. An estimated 1 in 10 people will have at least one episode of heel pain at some point in their life. It is common in both active and in-active people. Being overweight can also be a significant contributing factor.

Symptoms

Heel pain is the most common symptom. It is usually felt as an intense pain when you put your foot to the floor. Pain is usually worse first thing in the morning, or when you take your first steps after a period of prolonged inactivity. Walking usually improves the pain, but often the

pain gets worse again if you are walking or standing for a long time. People may develop a limp or abnormal walking style as they try to avoid placing weight on the affected heel. This can lead to other pain and issues.

Diagnosis & Investigations

Heel & Foot Pain is diagnosed from the signs and symptoms that you describe. Assessment of the foot, ankle and lower legs by a health care professional may help to inform this diagnosis. If the diagnosis is unclear, then an X-Ray or ultrasound can be performed to aid the diagnosis.

Will it get better?

Most Heel & Foot Pain will improve; however, some people report symptoms for years, as it can be quite stubborn.

Your symptoms can often be managed with advice and exercises from the physiotherapist. Most cases will resolve with conservative (non-surgical) treatment within 6-12 months.

Treatment is aimed at:

- Reducing pain and inflammation and promoting healing
- Restoring flexibility and normal movement

- Improving and normalising function
- We work with a team of Orthopaedic Advanced Practitioners and Consultants. If you do not respond to physiotherapy, we can escalate your care such as considering steroid injections. Steroid injections are sometimes used alongside physiotherapy exercises. They offer a window of opportunity to reduce symptoms to allow exercise participation. Injections are only offered in conjunction with physiotherapy.

Surgery for Heel & Foot Pain is rare.

Management

Heel & Foot Pain is treated with a variety of different management techniques. This condition often improves but takes time; it is important that you are patient.

The following advice may speed up your recovery.

- **Load management: Rest the foot** - Initially, reduce the amount of running and excessive walking, or standing where possible. However, you must do the exercises prescribed by your physiotherapist, these only take a few minutes and are fine for your heel pain.
- **Pacing** - Try not to sit for too long before moving around. Gently stretch the foot after any prolonged rest before standing up, to make those first steps more comfortable. Organise your day to minimise the length of time you are on your feet without rest. Try and take regular breaks to take the weight off your feet.
- **Exercise: Stretching** - Regular exercises are important to help speed up recovery. Often people with Heel & Foot Pain have tight calf muscles. These can have an effect on the Plantar Fascia. Stretching the big toe, with the calf is important too (see the stretching exercises.)
- **Exercise: Strengthening** - Specific Plantar Fascia strengthening exercises have been shown to improve your foot's ability to tolerate and cope with weight-bearing activities. Some good

beginner strengthening exercises have been included at the end of the booklet.

- **Weight loss** - Losing weight will help to take some of the load off the Plantar Fascia making it less irritated and can reduce the pain. You should aim to have a body mass index (BMI) of 25 or less. This can be very useful in improving your symptoms.
- **Footwear** - Try not to walk barefoot where possible. Use shoes, ideally with cushioned heels and a good arch support, and supportive slippers around the house. Laced shoes are often better than open sandals or flip flops.
- **Heel pads / insoles** - Also known as orthotics. You can buy various pads and insoles to cushion your heel and/or support the arch in your foot. Your physiotherapist can advise you about this. The most important thing is that they are comfortable to wear in your shoes. Both firm and soft insoles have been shown to be useful.
- **Painkillers** - Discuss simple medication such as paracetamol or 'non-steroidal anti-inflammatories' with your GP or Pharmacist. Sometimes anti-inflammatory gels can also be helpful.
- **General lower limb and leg strengthening** - Further exercises to strengthen the muscles around the foot, leg and pelvis can help. It helps the body absorb weight and load in other areas, not just the foot.

Management (cont'd)

- **Self-massage** - Gentle massage of the painful area can help to temporarily reduce pain if the Plantar Fascia is very painful. You can self-massage by rolling your foot over a cold tin, frozen water bottle or a tennis ball (see exercises).
- **Injections** - If symptoms are resistant to change, despite all the above

treatments over a reasonable period, a steroid injection may be an option. This may give pain relief, but it is not a cure. The pain reduction often lasts 4-8 weeks. The pain may return as the steroid wears off. It is essential therefore, to do the suggested exercises to help keep symptoms from returning.

Will I need to see a consultant?

Normally the answer is no. Your symptoms can often be managed with advice and exercises from the physiotherapist.

We work with a team of Orthopaedic Advanced Practitioners and Consultants. If you do not respond to physiotherapy, we can escalate your care, such as considering steroid injections.

Steroid injections are sometimes used to facilitate physiotherapy exercises. They offer a window of opportunity to reduce symptoms to allow participation of the exercises. Injections are only offered alongside physiotherapy.

Surgery is rare for Heel & Foot Pain and does not guarantee pain reduction.

EXERCISES



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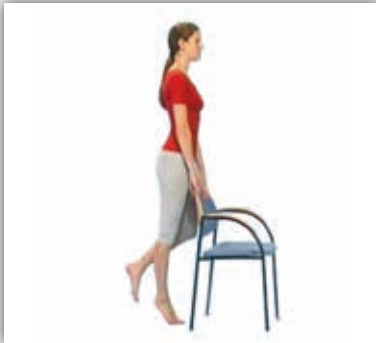
STRENGTHENING EXERCISES

Level 1 - Double leg calf raise:

Standing, with fingertips holding on for support. Raise on to your tip toes, tall as you can. Keep your knees straight throughout the movement and try not to sway forwards and backwards. Slowly lower heel back to the floor.

Try to do 3 sets of 5 – 30 reps. Gradually build up how many you can do as the pain allows.

EXERCISES



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STRENGTHENING EXERCISES

Level 2 - Single leg calf raise:

Standing on a single leg, with fingertips holding on for support.

Raise on to your tip toes, tall as you can. Keep your knees straight throughout the movement and try not to sway. Slowly lower heel back to the floor.

Try to do 3 sets of 5 – 30 reps. Gradually build up how many you can do as the pain allows.

Level 3 - Heel Raise (*targeting the Plantar Fascia*):

(**Note:** Only do this exercise after you have completed the first 2 levels and start gently. It can be sore to perform initially)

Level 3A: Stand on two legs with the front of your foot on the edge of a step and a towel roll placed under the toes raising them up. Hold on to something stable to help your balance.

Push up onto your toes, counting slowly to 3 and then hold for 2 seconds. Lower the heel towards the floor by counting to 3 and repeat from the beginning.

Level 3B: Repeat the same exercise but this time stand tall on **one leg**, (the front of your foot on the edge of a step and a towel roll placed under the toes); repeat the exercise.

STRETCHES



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Plantar Fascia Stretch in Sitting:

Sit with your lower leg across your other knee.

With your ankle bent, hold your heel with one hand and, using your other hand, pull your toes back towards your shin.

Hold for 20-30 seconds, release and repeat x3-5



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Soleus stretch:

Place the bad foot behind you, foot pointing straight ahead, keep the heel down and bend the knee to feel a stretch in the lower calf muscle.

Hold for 20-30 seconds, release and repeat x3-5 times.



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Gastroc stretch:

Place the painful foot behind you, foot pointing straight ahead, keep the heel down and knee straight and lean forwards to feel a stretch in the calf muscle.

Hold for 20-30 seconds, release and repeat x3-5 times.



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Massage using a ball / frozen bottle water::

Sitting, place a tennis ball, frozen bottle of water or tin of beans under your foot.

Roll it forwards and backwards under your foot by bending and straightening your knee.

Do for this for 2-10 minutes.

OTHER STRENGTH EXERCISES



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Sit to Stand (with / without resistance band):

Have your feet in a comfortable position, roughly as wide as your hips. Stand from a sitting position driving up through the heels. Keep the knees in alignment with the feet. If using a Theraband keep the band taught. Return slowly to a sitting position.

Try to do 3 sets of between 5 – 30 reps. Gradually build up to as many as is tolerable.

Bridge

Lie on your back with legs bent.

Squeeze your buttock muscles and roll your pelvis off the floor.

In a controlled manner, return to the starting position.

Try to do 3 sets of between 5 – 30 reps. Gradually build up to as many as is tolerable.

Side lying Clam Shell With / without resistance band

Start in-side lying with your legs bent (place a band around your thighs, close to your knees if you want to make it harder).

Lift and rotate the upper knee upwards. Keep your feet together and pelvis pointing straight forward. Feel the tension in your buttocks. Lower the leg back to the starting position.

Try to do 3 sets of between 5 – 30 reps. Gradually build up to as many as is tolerable.