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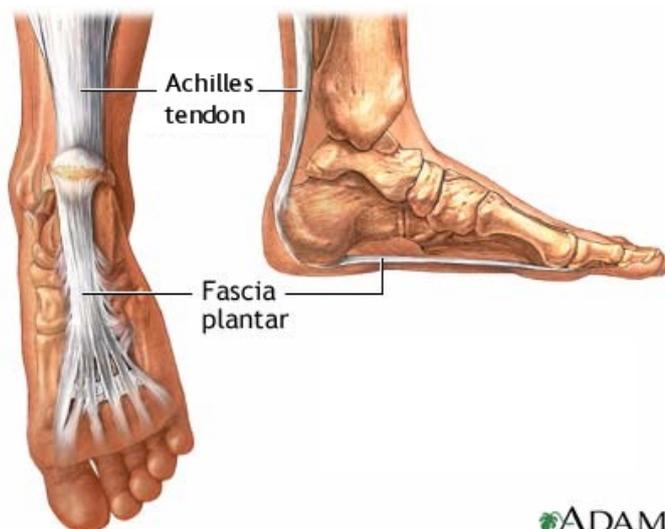
## Plantar fasciitis/fasciosis (heel pain)

### Introduction

You have been diagnosed with plantar fasciitis. This is a very common foot problem that can occur at any age and although often associated with sport often occurs after no history of high activity or trauma. This leaflet explains what it is, how it is diagnosed and outlines the treatment options.

### Anatomy of the foot

The arch of the foot is supported by a large broad band of tissue called the plantar fascia or plantar aponeurosis that runs from the heel bone to the ball of the foot. It is divided into three bands with the central and medial (inside) portion being the strongest. With weight bearing, the foot flattens and the ligament stretches. Sometimes, this overstretches and in time this can damage the insertion of the ligament into the heel bone. With continued stress on the aponeurosis it can become partially ruptured from the heel bone and this is the cause of your pain.



*Diagram showing plantar fascia/aponeurosis.*

### What are the symptoms of plantar fasciitis?

Pain is often worse on first weight bearing in the morning and after rest. In most people the pain improves with gentle activity. The pain is often a deep aching sensation but can in

some people feel very sharp. It is normally felt either under the heel or on the inside of the heel by the arch area.

The expectation is that the pain will go within 18 months. In many people it might last just a few weeks. It is impossible to predict how long the pain will last for each person and there are things that you can do in order to help with the pain and treat the problem.

### What causes plantar fasciitis?

In most people there is no specific cause. The pain is simply there on first bearing weight in the morning. In some people there is a mechanical cause, i.e. the posture of their feet, or trauma. The pain is the result of a pull on the plantar fascia (see below). Exactly why this happens is not clear.

### How is it diagnosed?

In the vast majority of people no investigations are required. The finding of a plantar bony spur which is seen on X-ray under the heel is irrelevant. In some people who have had heel pain for a long time an ultrasound scan or MRI might be ordered to confirm the diagnosis. Where it appears to be a standard mechanical heel pain the diagnosis is normally made in clinic. Occasionally, blood tests might be arranged but this is rare.

### How is it treated?

Treatment aims at resting the aponeurosis (fascia). The problem is that you still need to walk and carry out your daily routines.

Treatment options are:

#### 1. Support of the arch of the foot and stop the foot from “rolling in”

This is best achieved by wearing comfortable supportive shoes such as trainers and wearing insoles. These do not need to be made to measure but should have a good support to the arch. AOL or Orthoheel insoles are readily found at various pharmacies and online and work well. It is important that you wear the insoles all the time in sensible shoes in order for them to help.

#### 2. Controlled stretching of the fascia and Achilles tendon

We will show you some regular calf stretching exercises that you must do every day. You can see them on:

<http://www.youtube.com/watch?v=xI0tT0dY95E>

[http://www.ehow.com/video\\_4400255\\_achilles-tendon-strengthening-exercises.html](http://www.ehow.com/video_4400255_achilles-tendon-strengthening-exercises.html)

Make sure you do these throughout the day...

In most people this simple regime is enough to help significantly with the pain. If however your symptoms persist the next stage would be to consider a steroid injection

### 3. Steroid injection

This can bring about dramatic relief to your heel pain. The problem is that it might not last for a long time and there are risks associated with steroid injection. The injection of steroid which is a powerful anti-inflammatory into the heel reduces the inflammation and can reduce the pain. Numbing the heel before injecting the steroid significantly reduces the pain of injecting the steroid. It has been reported in the literature that the steroid can permanently thin the fat pad under the heel and this would be a major problem. We have injected the heel many times and will do this when symptoms dictate but for this reason steroids are not normally our first line of treatment.

### 4. Electrocorpeal Shock-Wave Therapy

ESWT is a treatment that can be recommended for plantar fasciitis. It is only available locally at the Berkshire Independent Hospital in Reading, but is available to NHS patients via GP referral. The treatment consists of receiving shock waves to the painful area of the heel with the aim of reducing the inflammation and pain. The treatment usually takes around 10 minutes, but requires between three and six sessions (one per week).

### 5. Immobilisation

If the pain persists, immobilising the heel might be required. This could be in a plaster cast or a removable walker boot. This could be for up to 6 weeks.

### 6. Surgery

This is very rarely needed. There are numerous surgical procedures but the basic aim is to detach a portion of the fascia from the heel bone. Should this become necessary we will discuss this with you in detail.

### What does surgery involve?

If conservative measures have failed the surgical release of the plantar fascia may be necessary.

On the day of surgery you will be admitted to the ward and one of the nursing staff will check you in, take your blood pressure and any other tests that may be required. The surgeon will remind you of the surgical process and possible complications and ask you to sign a consent form. This type of surgery is usually done under local anaesthetic and sedation but if you are having a general anaesthetic the anaesthetist will also meet you and discuss any queries that you might have about the anaesthetic and any issues related to your general health. At some point during the morning/afternoon you will be escorted to theatre.

An incision will be made at the junction between the heel and arch and the fascia released. The surgery will take about 30 minutes and the wound will be closed with non-dissolvable stitches. Once surgery is completed your foot will be bandaged and you will go to recovery

and from there back the ward. We will visit you after the procedure and discharge you. You will be provided with crutches and must remain non-weight bearing on the operated leg for around 3 weeks.

You should not drive after foot surgery and should be accompanied home by a responsible adult.

You will be advised of your follow up appointment date, either on the day or by letter in the post.

### How will I feel afterwards?

Although long-acting local anaesthetic, administered during the procedure, should control most of the pain for about 8 to 10 hours, you can expect some pain or discomfort after the operation. Painkillers will be discussed with you prior to your operation and you should bring these with you on the day of surgery.

### Recovering from surgery

#### The first 2 days

Restrict your activity to going to the toilet only. You must use the crutches provided and must not take weight on your heel. Bend your knee and ankle periodically to stimulate circulation. Most people are able to stop taking their painkillers after 48 hours. Do not leave the house, drive or get the foot wet.

#### 2-7 days

You should aim to be moving around the house for 20 minutes in each hour (not in one go) resting with your foot elevated for the remaining 40 minutes. Do not go out of the house, drive or get your foot wet.

#### 7 days

Your foot will be checked in the outpatient clinic and your dressings will be changed. Keep your foot dry. Keep wearing your post-operative boot.

#### At 21 days

At the second post-operative appointment you will probably have the stitches taken out. This is normally painless. You will be advised to gradually increase your activity and gently exercise. You may wash and bathe normally and apply moisturising cream to the wound. You should be able to get into a wide shoe or trainer and start moving as much as you are comfortably able to. Apply regular ice packs to the foot to reduce swelling.

#### At 3 weeks

You should be able to start walking gently through the heel. There will be soreness at the surgical site which could last for months.

## What are the possible risks and complications?

The successful outcome of any operation cannot be guaranteed. The following information outlines the more common complications relating to foot surgery in general and more specifically to the type of operation that you are having.

### General complications of foot surgery

- Pain. There will be post-operative pain. For most people the pain passes after 24-48 hours and is tolerable with regular painkillers (following dosage recommendations).
- Swelling. This is a normal outcome of any operation. The extent of post-operative swelling varies and cannot be predicted. In some people the swelling reduces within a matter of weeks and in others could take many months. Application of an ice pack greatly reduces swelling.
- Infection. There is a small risk of infection with all surgery. If this occurs it will be treated with relevant antibiotics. Look out for redness and discharge from the wound.
- Deep Vein Thrombosis. Also known as Venous Thromboembolism (VTE), this is a rare complication of foot surgery under local anaesthetic. The risk increases if you are having a general anaesthetic. There is also an increased risk if you take the contraceptive pill, HRT or smoke. Immobilising the leg in a cast also increases the risk of a DVT. If you have had a DVT in the past, please tell your surgeon. If you do have certain risk factors you will have an injection to thin your blood on the day of surgery. This might need to be repeated for up to 7 days following surgery.
- Complex Regional Pain Syndrome (CRPS). This is a rare but difficult complication. This is an abnormal response of the nervous system to surgery but can happen after simple trauma. This can lead to a variety of painful sensations in the foot, which require medical and pain relieving techniques.
- Scarring: As a result of your surgery you will have a scar on your foot. To begin with the scar will be raised, red and sensitive but with time it will normally settle.

### Specific complications of plantar fasciitis surgery

- In a small number of patients the arch of the foot might flatten and collapse. Releasing the plantar fascia can cause the fascia to stretch and lengthen and, rarely, snap which can lead to a permanently flat foot.
- Scar tissue might develop making it painful to walk a small number of patients will develop excess scar tissue which can be felt under the foot during walking. Remedial surgery is possible to deal with this complication with variable outcomes.
- There may be persistent pain after surgery; however, this is rare and unlikely.

Useful numbers

Baddow Hospital

01245 474070

Baddow Emergency Contact Nurse

07591 977965

Queen Anne Street Medical Centre

020 7034 3301