Treating Heel Pain

by Mr. Ranjan Vhadra

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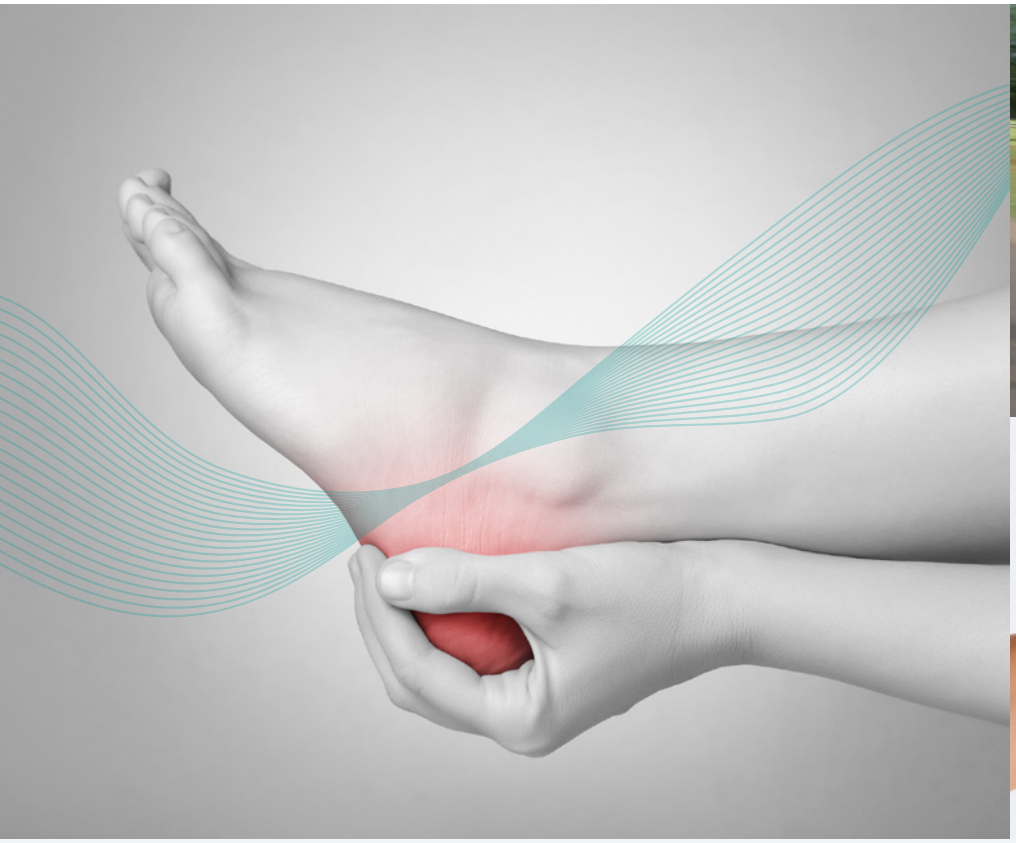

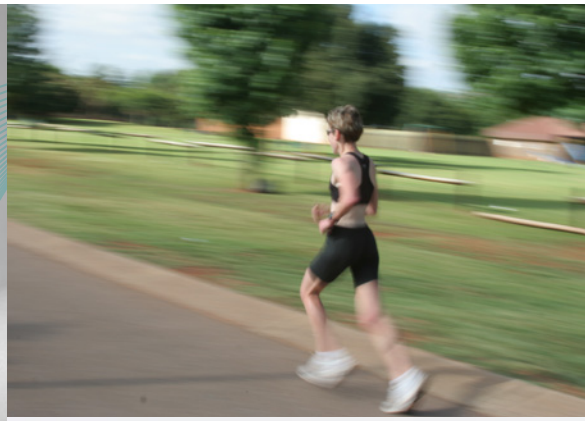

PlantarCare

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PlantarCare

Introduction

Mr. Ranjan Vhadra

MBBS, FRCS, FRCS
(Trauma & Orthopaedics)

Hello, my name is Mr Ranjan Vhadra

I'm a practicing orthopaedic surgeon who specialises in joint surgery. If you've ever broken a bone or needed a joint replaced, it was an orthopaedic surgeon who operated on you.

In this guide I'm going to explain about plantar fasciitis, the main cause of heel pain, and how you can get it better in a few easy steps. I'll also explain what the condition is, what your treatment options are and how PlantarCare can help to alleviate your pain. I'll try and explain everything with the minimal amount of medical jargon but if you have any questions please email me using the contact details at the end of this guide.

A little about my background

I am a consultant orthopaedic surgeon operating in Guernsey, one of the Channel Islands between England and France. I trained as a doctor at St Barts medical school in London and undertook my training in surgery at many prestigious hospitals around Britain including the Royal National Orthopaedic Hospital, Wrightington Hospital and the Robert Jones & Agnes Hunt Hospital in Oswestry. I also trained at the Hospital for Special Surgery in New York.

Next: What is plantar fasciitis?

What is plantar fasciitis

Plantar fasciitis is a painful condition of the tissue connecting the heel to the toes. It is usually suffered by people in the age range of 40 to 60 and is a common condition that will affect between 7% to 10% of the population at some stage.

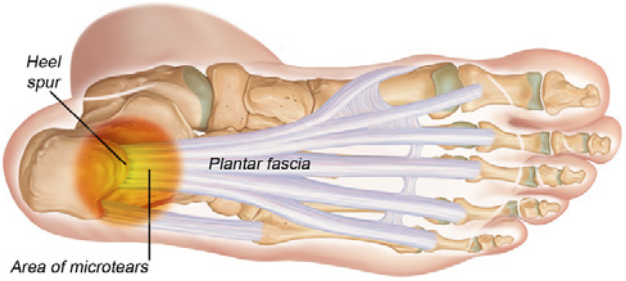
It is caused by the connective tissue, the plantar fascia, becoming damaged through sudden stress and causes severe pain at the base of the heel.

This can be brought on by any number of factors, a tight achilles tendon, sports injury, physical stress on the feet or just simply by daily wear and tear.

At one stage plantar fasciitis was thought to be an inflammatory condition with the tendon becoming inflamed. Because of this the classical treatment has been a corticosteroid injection into the tendon. Over the years research has shown that in fact it is not due to inflammation but due to micro trauma of the tissues where an ineffective blood supply means a very slow healing process and an increased likelihood of repeated damage.

Plantar fasciitis will eventually heal itself but it can take over a year for this to happen. During this time you need to rest the foot as much as possible. Many people suffer from the condition for years living with a stabbing pain in the heel which never goes away and is often worse in the morning.

> “ Plantar fasciitis is caused by connective tissue becoming damaged. A very slow healing process increases the likelihood of the damage being repeated.



Next: What treatments are available?

What treatments are available?
Part 1

When a doctor is treating a patient they should follow the guidance from NICE, the National Institute for Health and Care Excellence. This is what NICE recommends as a starting point for treatment:

- Rest the foot, avoid standing or walking for long periods
- Wear shoes with good support and cushioning
- Lose weight if appropriate
- Take an analgesic (painkiller) such as paracetamol or ibuprofen
- Apply an icepack to the foot if the pain becomes too much

NICE also concludes that these treatments, called 'conservative measures', are the first step (excuse the pun) to treating the pain but also recommend other options. They suggest night splints and boots, although they acknowledge these are uncomfortable to wear, surgery, which I often do to release the tension in the tissue, and extracorporeal shockwave therapy (ESWT), more of which later.

Other than the basic rest, support and weight loss, let's look at the other treatments in turn which may provide a benefit.

What treatments are available?
Part 2

Corticosteroid injections

− Painful − Short term benefit − Potential side effects

Steroid injections have until recently been a very popular treatment for plantar fasciitis. The recent evidence also suggests that these injections provide a short term benefit (NICE states 4 weeks maximum) but not a long lasting effect. They can also have side effects including depigmentation (colour change of the skin) and atrophy of the injection site (indentation of the skin).

Tendons can also be weakened by the injections and plantar fascia ruptures have also been reported. They are also very painful to receive.

> *The injection is often very painful and post-injection pain may last for several days*
>
> NICE guidance for management of plantar fasciitis

Splinting and Orthotics

− Difficult to use at night
+ Moderately successful for some patients

The idea behind splinting is that during the night the plantar fascia tightens. As any sufferer of the condition knows, the most pain from the condition is suffered in the morning when first walking on the foot. Keeping the foot splinted in the same position at night stops the tightening and keeps the plantar fascia ligament and achilles tendon gently stretched. Unfortunately experts agree that all forms of splinting are uncomfortable to wear, sleep is often difficult and many patients give up on this form of treatment so it is rarely successful.

What treatments are available?
Part 3

Anti-inflammatory drugs (Ibuprofen, Nurofen)

+ Short term pain relief
− Side effects
− Not targeted at the problem

This is usually the first line of treatment for the pain of the condition. All pain relieving (analgesic) treatments work by blocking the pain signal to the brain. Drugs such as paracetamol, ibuprofen and morphine do this chemically, blocking chemical mediators that allow the pain signal to pass from nerve to nerve on its way to the brain.

It's important to note, these drugs are not specific to the site of injury. The body is bathed by the drugs and only a very small portion of the drug that you take actually works on the damaged tissue. On the whole they are very safe but they do have side effects in some patients. Anti inflammatory drugs such as ibuprofen (Nurofen) and aspirin can cause gastritis and stomach ulcers. Very rarely they can cause life threatening bleeding if used for more than a few weeks.

Physiotherapy and Exercise

+ Can produce moderate benefits in many patients
+ Recommended by NICE
− Expensive if done by a professional, time consuming

NICE recommend a number of stretching exercises for plantar fasciitis. These can be performed in the morning when getting out of bed to stretch both the achilles heel and the plantar fascia. Stretching exercises can be done at home by yourself or a physiotherapist and are widely recommended by experts even though

NICE themselves state there is a lack of good quality studies on their effectiveness. They are certainly worth a try.

What treatments are available?
Part 4

Extracorporeal Shockwave Therapy

- ⊕ Effective for both pain relief and faster healing
- ⊕ Recommended by NICE
- ⊖ Expensive and requiring specialised equipment

Shockwave therapy is a relatively simple treatment for tendon and tissue disorders. A powerful wave in the form of a set frequency of vibration is directed through the skin to the problem area. The energy released promotes regeneration of the tendons and other soft tissues, reducing the pain at the time for up to four hours after treatment.

While this healing sounds rather magical, it is in fact no different to what surgeons have been doing for many years. A standard operation for tennis elbow, a similar condition to plantar fasciitis, is to strip away the outer layers of the tendon and burn tiny holes into it, a procedure that generates inflammation and healing by drawing blood to the injury site. Shockwave therapy is a similar process, where vibration is sent to the tendon or tissue to stimulate growth, but without the need for surgery.

> “Whilst being an effective pain reliever and recommended by NICE, Extracorporeal Shockwave Therapy is expensive and requires specialised equipment.

Next: How did I find the answer to plantar fasciitis?

How did I find the answer to plantar fasciitis?

As a surgical trainee I undertook many research projects some of which I have published and presented at orthopaedic meetings around the world. One such project was looking at low frequency shockwave therapy for the treatment of tendon disorders. This treatment was well recognised for chronic pain and the study involved patients who had tendon conditions that were resistant to all other forms of treatment.

The equipment that applied the treatment was large, expensive and complex to operate. It required a therapist to apply 20 minutes of treatment which the patients received once a week. I was actually surprised at how much benefit the patients received from the treatment.

However, the treatment was only available in hospital and the patients were limited in their use of the machine. Now, with greater understanding of tissue disorders and modern technology the equipment has been made smaller, inexpensive and easy to operate. All the benefits of the hospital equipment but in portable devices that sufferers can use at home.

Next: How does PlantarCare work?

How does PlantarCare work?
Part 1

Helping reduce the pain

PlantarCare helps to alleviate the pain using a mechanism called the Gate Control Theory. This was first discovered in 1965 by two scientists, Melzack and Wall and published in their classic Science article “Pain Mechanisms: A New Theory”. The pain signal that runs up to the brain can be blocked by an inhibitory neuron. This inhibitory neuron can be activated by accurately stimulating the vibration sensors in the body. In layman’s terms, the vibration shockwave scrambles the pain signal to the brain.

It is also easy to use at home. The small, battery operated device is painless and effective. Just apply to the point of the pain and tighten the strap around the foot. Press the button to start the treatment and leave it running for around 10 minutes. It’s recommended to do this three times a day for maximum benefit.

How does PlantarCare work?

Part 2

As with all shockwave machines new blood vessel formation is induced during treatment leading to faster healing. Where patients previously saw little improvement in their condition, with regular use the majority see a daily decrease in their levels of pain and an increase in their mobility.

In the original trials of the device back in 2009, many of my patients loved it so much they were reluctant to give back the trial machines I gave them in case their symptoms returned.

Next: Conclusion

Conclusion

PlantarCare is an easy to use, cheap and effective way to help alleviate the pain of plantar fasciitis. It is safe, side effect free and recommended by many doctors and medical practitioners. I have no hesitation in recommending it to my patients who suffer from the condition.

Try PlantarCare yourself

If you'd like to try PlantarCare you can do so with a guarantee to refund all your money if not completely satisfied so you can try it without any risk. As an added benefit, most people can order without the VAT by simply ticking in the box provided.

If you'd like to take up this offer click here to purchase your device.

Any questions?

Email the MTL medical team

All questions will be forwarded directly to Mr. Vhadra

Mr. Vhadra has been involved in the development of the PlantarCare technology but has no commercial involvement with Medical Technology Ltd, the manufacturer of PlantarCare and has not been paid for his endorsement of the product.

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