

PLANTAR FASCIITIS

INTRODUCTION

Welcome to Moveo Sport and Rehabilitation Centre's patient resource about Plantar Fasciitis.

Plantar fasciitis is a painful condition affecting the bottom of the foot. It is a common cause of heel pain on the underside of the foot and is sometimes called a heel spur.

Plantar fasciitis is the correct term to use when there is active inflammation. Plantar fasciosis is more accurate when there is no inflammation but chronic degeneration of the plantar fascia after long standing plantar fasciitis.

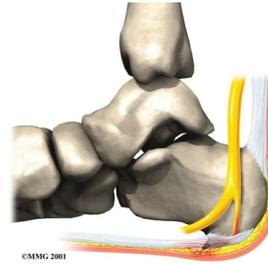
This article will help you understand

- how plantar fasciitis develops
- how the condition causes problems
- what can be done for your pain

ANATOMY

Where is the plantar fascia, and what does it do?

The plantar fascia is a thick band of connective tissue. It runs from the front of the heel bone (*calcaneus*) to the ball of the foot. This dense strip of tissue helps support the arch of the foot by acting something like the string on an archer's bow. It is the tissue which is the source of the painful condition plantar fasciitis.



Both the plantar fascia and the Achilles' tendon attach to the calcaneus. Although they function separately, there is an indirect relationship. If the toes are pulled

back toward the face, the plantar fascia tightens up. This position is very painful for someone with plantar fasciitis. Force generated in the Achilles' tendon increases the strain on the plantar fascia. This is called the *windlass mechanism*. This mechanism is used to treat plantar fasciitis with stretching and night splints.

CAUSES

How does plantar fasciitis develop?

Plantar fasciitis can come from a number of underlying causes. Finding the precise reason for the heel pain is sometimes difficult.

As you can imagine, when the foot is on the ground a tremendous amount of force (the full weight of the body) is concentrated on the plantar fascia. This force stretches the plantar fascia as the arch of the foot tries to flatten from the weight of your body. This is just how the string on a bow is stretched by the force of the bow trying to straighten. This leads to stress on the plantar fascia where it attaches to the heel bone. Small tears of the fascia can result. These tears are normally repaired by the body.

As this process of injury and repair repeats itself over and over again, a bone spur (a pointed outgrowth of the bone) sometimes forms as the body's response to try to firmly attach the fascia to the heel bone. This appears on an X-ray of the foot as a heel spur.

SYMPTOMS

What does plantar fasciitis feel like?

The symptoms of plantar fasciitis include pain along the inside edge of the heel near the arch of the foot. The pain is worse when weight is placed on the foot. This is usually most pronounced in the morning when the foot is first placed on the floor and the first few steps out of bed in the morning. Prolonged standing can also increase the painful symptoms. It may feel better after activity but most patients report increased pain by the end of the day. Pressing on this part of the heel causes tenderness. Pulling the toes back toward the face can be very painful.

DIAGNOSIS

How do health care providers diagnose the condition?

When you first visit Moveo Sport and Rehabilitation Centre, our therapist will examine your foot and speak with you about the history of your problem. Diagnosis of plantar fasciitis is generally made during the history and physical examination. There are several conditions that can cause heel pain, and plantar fasciitis must be distinguished from these conditions.

OUR TREATMENT

NON-SURGICAL REHABILITATION

Non-surgical management of plantar fasciitis is successful in 90 per cent of all cases. When you begin therapy at Moveo Sport and Rehabilitation Centre, our therapist will design exercises to improve flexibility in the calf muscles, Achilles' tendon, and the plantar fascia. Further rehabilitation may be necessary depending on the kinetic chain's contribution to the plantar fascia stress.

We will apply treatments to the painful area to help control pain and swelling. Examples include ultrasound, ice packs, and soft-tissue massage. Our chiropractors can perform Active Release Technique or ART® which is quite effective for Plantar Fasciitis. Our therapy sessions sometimes include Graston Techniques, which uses a stainless steel instrument to help break up adhesions and



help to re-align the fibres of the plantar fascia. Some of our therapists may also use acupuncture treatments to increase local blood flow to the area of the plantar fascia.

Depending on a number of factors including the chronic nature of the problem, We may

have a customized arch support, or *orthotic*, designed to support the arch of your foot and to help cushion your heel. Supporting the arch with a well fitted orthotic may help reduce pressure on the plantar fascia.

Alternatively, we may recommend placing a special type of insert into the shoe, called a heel cup. This device can also reduce the pressure on the sore area. Wearing a silicone heel pad adds cushion to a heel that has lost some of the fat pad through degeneration.

Your Moveo Sport and Rehabilitation Centre therapist will also provide ideas for therapies at home such as stretches and icing techniques. We may also have you fit with a night splint to wear while you sleep or suggest taping to help support the plantar fascia.

We find that many times it takes a combination of different approaches to get the best results for patients with plantar fasciitis. There isn't a one-size-fits-all plan.

Finding the right combination for you may take some time. Don't be discouraged if it takes a few weeks to a few months to find the right fit for you. Most of the time, the condition is self-limiting. This means it doesn't last forever but does get better with a little time and attention.

PHYSICIAN REVIEW

If your heel pain doesn't subside in a few weeks, your Moveo Therapist may refer you back to your doctor to examine more complex forms of treatment. Your doctor may order an X-ray to rule out a stress fracture of the heel bone and to see if a bone spur is present that is large enough to cause problems. Other helpful imaging studies include bone scans, MRI, and ultrasound.

Your physician may also suggest some alternative methods of treatment for plantar fasciitis: cortisone injection, shock wave therapy or anti-inflammatory medications.

SURGERY

Surgery is a last resort in the treatment of heel pain. Most procedures that are commonly used today focus on several areas:

- remove the bone spur (if one is present)
- release the plantar fascia (plantar fasciotomy)
- release pressure on the small nerves in the area

POST-SURGICAL REHABILITATION

Although recovery rates vary among patients, it generally takes several weeks before the tissues are well healed after surgery. You will probably use crutches briefly, and your Moveo therapist can help you learn to properly use your crutches to avoid placing weight of your foot while it heals. A program and various modalities of treatment will be used to speed recovery from surgery. With a good post surgical rehabilitation program, you should be ready for full activity in about six weeks.

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