

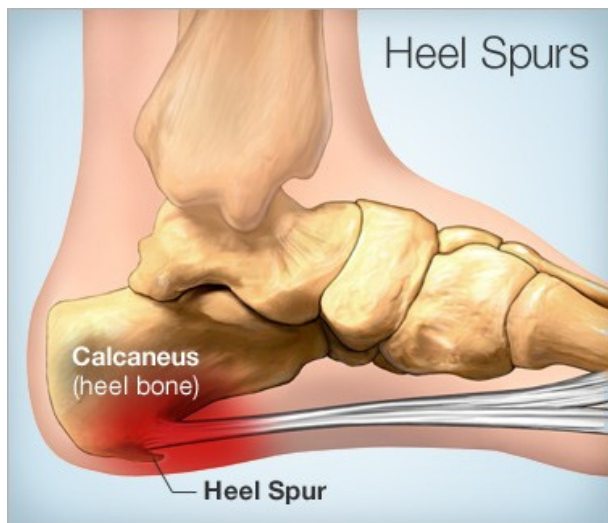
PLANTAR FASCIITIS

INJURY DESCRIPTION

Plantar Fasciitis is a common foot problem in sports participants. It starts as a dull intermittent pain in the heel which may progress to a sharp persistent pain.

Classically, it is worse in the morning with the first few steps or at the beginning of sporting activity.

The plantar fascia is a thick fibrous material on the bottom of the foot. It is attached to the heel bone (Calcaneus) and fans forward toward the toes. It is responsible for maintaining the arch of the foot.



The problem usually occurs when part of this inflexible fascia is pulled away from the heel bone. This causes an inflammation and thus, pain. Plantar fascia injury may also occur at midsole or towards toes. Since it is difficult to rest the foot, a vicious cycle is set up with the situation aggravated with every step. In severe cases, the heel is visibly swollen. The problem progresses rapidly and treatment must be started as soon as possible. As the fascia is pulled away from the bone, the body reacts by filling in the space with new bone. This causes the classic “Heel spur”. This heel spur is a secondary x-ray finding and is not the problem, but a result of the problem.

Predisposing factors

Flat pronated feet, High arched rigid feet, Inappropriate/improper shoes, Toe running, Hill running, Soft terrain (i.e. running on sand) and increasing age.

TREATMENT

REST

Use pain as your guide. If your foot is too painful, weight bearing sports can be temporarily replaced by swimming and/or cycling to maintain cardiovascular fitness. Weight training can be used to maintain leg strength.

ICE

Icing your heel (frozen peas or roll water bottle under your arch) for 15 minutes several times a day will reduce the inflammation. You should also

ice your heel after activity for 15 minutes.

STRASSBURG SOCK

The Strassburg Sock is an easy to use device designed to keep tension on the plantar fascia so it heals in a stretched position at night.

MEDICATION

Your doctor may prescribe anti-inflammatory pills. These are important in reducing the inflammation in your foot.

PHYSIOTHERAPY

The initial objective of physiotherapy (when needed) is to decrease the inflammation. Later, the small muscles of the foot will be strengthened to support the weakened plantar fascia.

CORTISONE

A cortisone injection is usually quite beneficial if the above have not solved the problem. It is very safe in this area.

SPORTS

Plantar fasciitis can be aggravated by all weight bearing sports. Repetitive foot landing, such as occurs in running and jogging will aggravate the problem. When the problem is severe the best sports are ones which are non-weight bearing (i.e. swimming, cycling). Go back into other sports slowly. If you have a lot of pain either during the activity or the following morning, you're doing too much. The following adjustments may help the problem.

HEEL PADS

A heel pad of felt, sponge or of newer materials (i.e. Sorbothane, Spenco) can help to absorb the shock as the heel lands and ease the pressure on the plantar fascia. It may be necessary to cut a hole in the heel pad so the painful area will not be irritated. Heel pads and heel cups are available at sports stores and medical supply stores.

SHOES

It is possible for shoes to cause the problem. You may need different or new shoes. A knowledgeable salesperson can be invaluable.

ORTHOTICS

These are inserts for your shoe which your podiatrist will prescribe if necessary.

TAPING

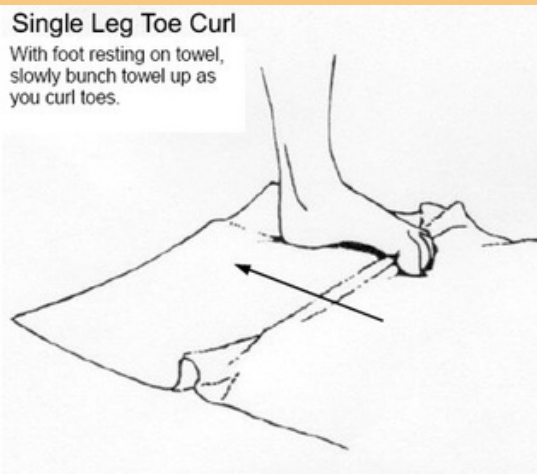
Taping your foot to maintain the arch will take some tension off the plantar fascia.

EXERCISES

The following exercises are designed to strengthen the small muscles of the foot to help support the damaged area. If performed regularly, they will help prevent re-injury.

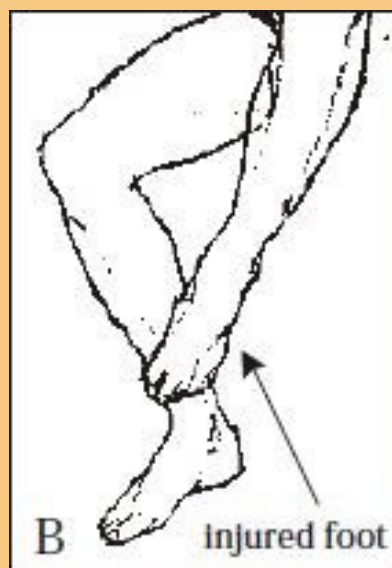
TOWEL CURLS

Place towel on a floor. Curl towel toward you, using only the toes of your injured foot. Resistance can be increased with a weight on the end of the towel. (See image below) Repeat 20 times.



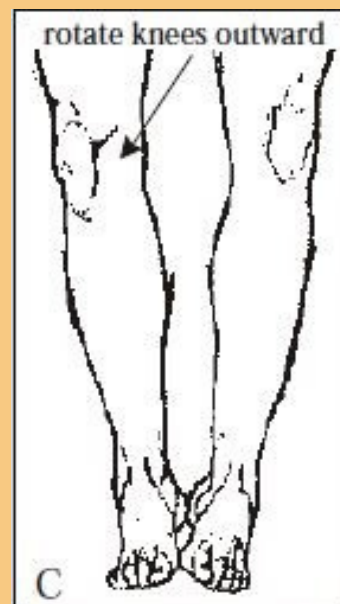
SHIN CURLS

Run your foot slowly up and down the shin of your other leg as you try to grab the shin with your toes. (See image below) Repeat 30 times. A similar exercise can be done curling your toes around a tin can.



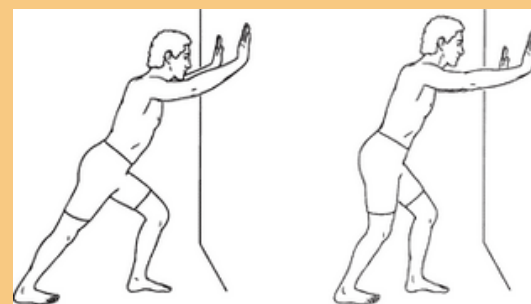
TOE GRABS

Stand feet together. Rotate knees outward while attempting to grab floor with your toes using the muscles of your foot. Hold 10 seconds and then relax. Repeat 20 times. (See image below)



STRETCHES

Lean against wall with your back knee locked. Press forward until a stretch is felt in your calf muscle. (See first image below) Hold 15 seconds.



Then bend the back knee until a stretch is felt in your Achilles tendon. (See second picture above) Hold a further 15 seconds.

Repeat 3 times. You should feel a pull in your muscle and tendon, but no pain.