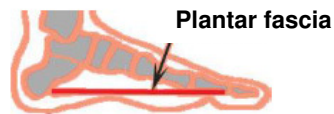


Plantar Fasciitis

Plantar fascia is a band of tissue similar to a ligament that runs under the heel to the toes. Under normal circumstances, the plantar fascia acts as a shock-absorbing “bowstring” within the arch of the foot. If tension on this “bowstring” becomes too great, irritation or inflammation can occur, causing plantar fasciitis.

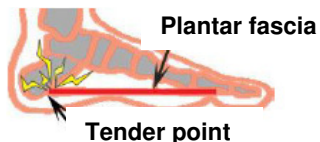
Common causes:

- Prolonged standing or walking
- Overload the foot due to obesity, pregnant or carrying heavy weight
- Flat foot
- High arch foot
- Unsuitable shoes



Symptom of plantar fasciitis

1. Pain: The spot with most severe pain is often the medial heel, and may be tender to touch. If big toe is being extended, it passively stretch the plantar fascia and causing pain.



2. The pain is often worst when you take first steps in the morning, or after

long periods of rest where no weight is placed on your feet. Gentle exercise may ease a bit, as the day goes by, after a long walk or being on the feet for a long time often makes the pain worse.

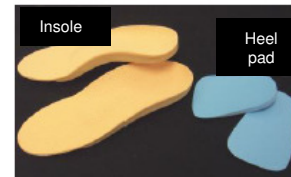
Treatment and prevention of plantar fasciitis

1. Resting

- Do not walk bare foot on hard or uneven surfaces to decrease tension over plantar fascia
- Use icing to foot also help to relieve pain after walk
- Do swimming or cycling to control body weight. Do not perform exercise that increase loading of the foot, such as running.

2. Orthosis

- Heel pads –raise the heel to decrease vibration and pressure over the tender spot
- Orthopaedic insole – to support arch of the foot in order to prevent overstretch the plantar fascia and associated inflammation. The insole must be used with suitable shoes.



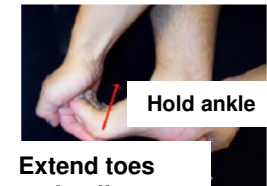
- Nocturnal ankle foot orthosis – To maintain ankle in neutral or 5 degrees of extension in order to maintain tendon in a pre- stretched condition



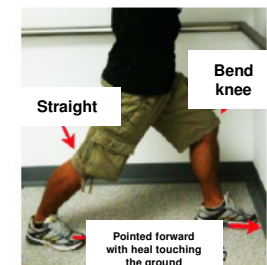
3. Exercise

Stretching exercise for foot

1. Plantar fascia stretching exercise: The exercise should be done before touching the ground after sitting or sleeping. Sitting with leg crossed and ankle up, pull toes up until a stretch is felt.



2. Calf stretching exercise: Face wall, keeping back leg straight, toes forward and heel on floor, lean into a wall until a stretch is felt in calf.



- Muscle strengthen exercise to prevent overstretch of plantar fascia due to weakness over the tendons, it also help reduce pain

1. Sitting with leg crossed and allow ankle move downward and inward, slight stretching over calf area should be felt.



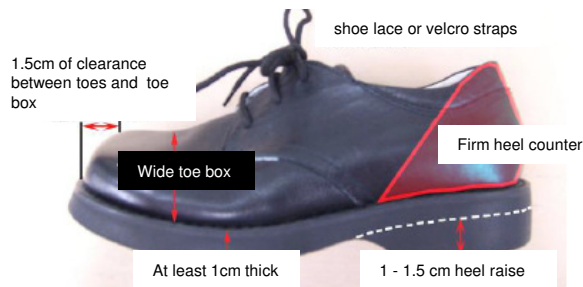
When using orthoses, you must know

1. Pick proper shoes

- You should purchase shoes during afternoon and evening because your foot getting bigger after activities
- Fitness of shoes should be adjustable by using shoe lace or velcro straps
- Proper sizes shoes should be selected, around 1-1.5cm of clearance should be



- available between toes and toe box of the shoes. Fitness of shoes should be checked regularly to prevent excessive pressure.
- Toe box of the shoes should be width and depth enough to provide moving spaces for the toes. Pointed shoes is not recommended
 - Should allow 1 - 1.5 cm heel raise, the minimum sole thickness in forefoot region should more than 1 cm
 - Foot wear should be changed when it worn out or not fit. Wearing shoes with damaged



sole can compromise walking pattern

- Heel should be well protected, stable and firm heel counter is necessary to protect ankle; wider sole to provide stability and support

- Sole and heel cup should firm enough to allow foot orthosis function properly
- The interior design of shoes should spacious and allow application of orthosis

2. The time for using orthosis

- Muscle fatigue and soreness could happen because muscle that usually not working was triggered.
- Duration for using orthosis should increase progressively
- Wear socks with orthosis in footwear to prevent rubbing over naked skin .

3. Maintenance of orthosis

Use soap water or clear water to remove dirt on orthosis. Don't soak in water for cleansing. Lay flat to dry. Don't use hot water to clean the orthosis

- Renovation of orthosis

- Please contact your doctor or orthotist immediately if you found redness or blister after using the orthosis.
- Please comply with the instruction given by your orthotist and have regular follow up

For enquiry, please contact Prosthetic and Orthotic department of different hospitals

Understand Plantar Fasciitis

