

# Plantar Fasciitis





## Plantar Fasciitis

Plantar fasciitis is the most common cause of heel pain for which professional care is sought. This is caused by irritation of the plantar fascia – a thickened fibrous band that runs from the heel to the ball of the foot. This band pulls on the heel bone, raising the arch of the foot as it pushes off the ground. If the feet move incorrectly, the plantar fascia may become irritated and swell, causing plantar fasciitis.

The plantar fascia is made up of three distinct parts: the medial, central and lateral bands. The central plantar fascia is the thickest and strongest section, and this segment is also the most likely to be involved with plantar fasciitis.

### Symptoms

The most common symptom of Plantar Fasciitis is pain at the bottom of the foot, first thing in the morning or after prolonged sitting. It may lessen after walking, but returns with continued activity.

### Treatment

#### Anti-inflammatory drugs:

Oral anti-inflammatory medication such as ibuprofen will relieve pain and reduce swelling.



#### Equipment:

Night splints keep the plantar fascia from getting tighter at night.

Over-the-counter heel cushions and gel heel inserts along with well-cushioned, "shock-absorbent" shoes are also helpful.

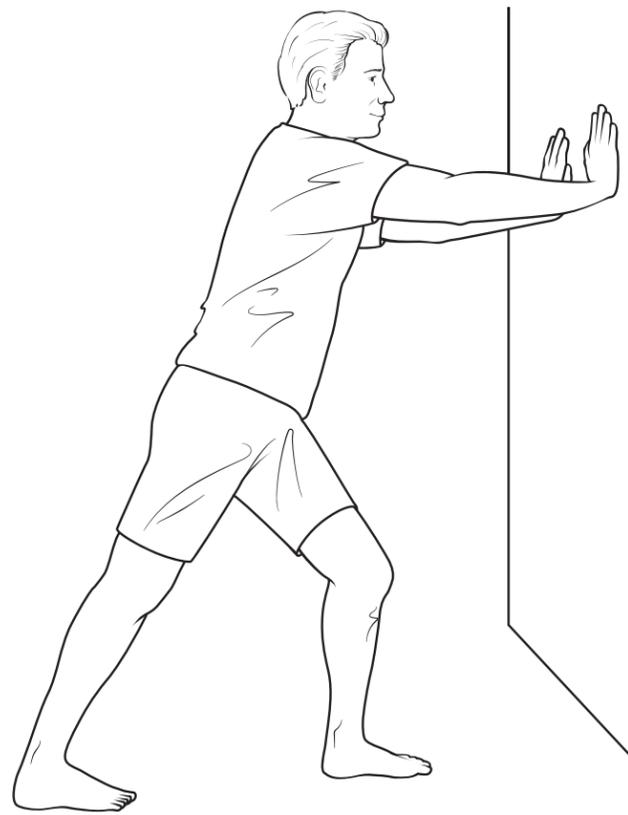
# Stretching exercises

## TOE FLEXION/EXTENSION



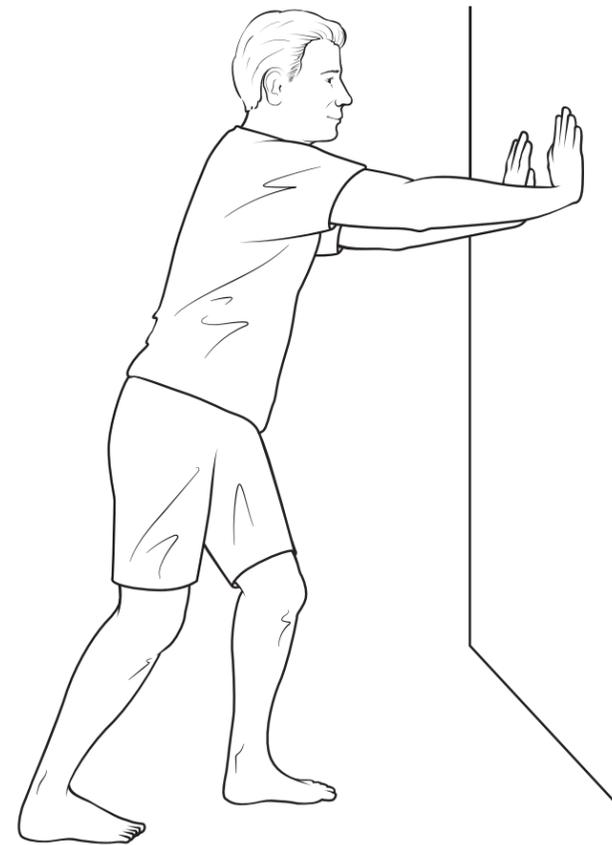
Gently grasp affected toes and curl then straighten them. Hold each position two to three seconds. Repeat 10 times per set. Do three sets per session, once or twice daily. You may find additional relief by massaging the sore area while performing this stretching exercise. Additionally, rolling your foot on a tennis ball or golf ball may help alleviate symptoms along the arch.

## GASTROCNEMIUS STRETCH



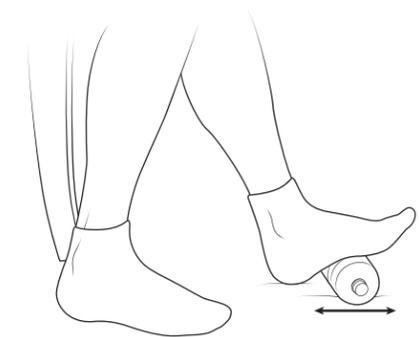
Stand with the affected foot back, leg straight, and forward leg bent. Keep your heel on the floor, turned slightly out. Lean into wall until the stretch is felt in your calf. Hold 20 - 30 seconds. Repeat three times per set, one set per session. Do once or twice daily.

## SOLEUS STRETCH



Stand with the affected foot extended back and both knees bent. Keep the heel on the floor, turned slightly out. Lean into wall until the stretch is felt in lower calf. Hold 20 to 30 seconds. Repeat three times per set, one set per session. Do once or twice daily.

## ICE BOTTLE



Fill a 20 oz. bottle with water and freeze it. Sit in a chair and roll the bottle up and down the bottoms of your feet for five to 10 minutes. Make sure you are wearing socks. Do once or twice daily.

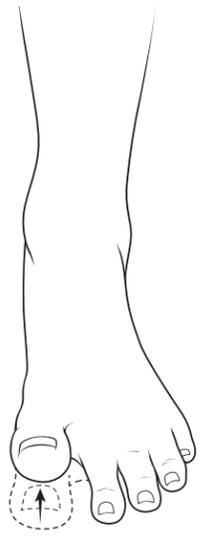
## PLANTAR FASCIA STRETCH



Place one foot completely on a step or stair. Place just the ball of the other foot (affected side) on the step and push the heel down until the stretch is felt through the arch of the foot. Hold 20 to 30 seconds. Relax. Repeat three times per set. Do one set per session, once or twice daily.

# Strengthening exercises

## BIG TOE EXTENSION (SITTING)



Begin sitting upright in a chair with your feet resting flat on the floor. Lift your big toe straight up, keeping your other toes flat on the ground. Make sure to keep your other toes relaxed and keep the heel and the ball of your foot on the ground. This may be difficult to do without moving the other toes at first, but it should improve with practice.

## LESSER TOES EXTENSION (SITTING)



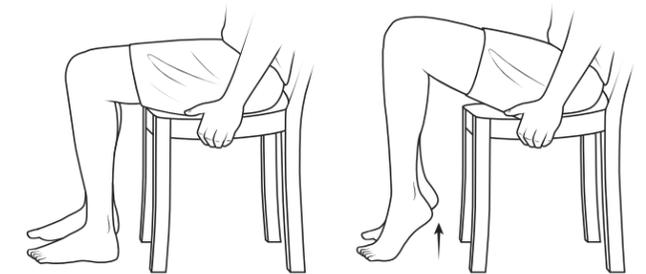
Begin sitting upright in a chair with your feet resting flat on the floor. Lift your other four toes straight up, keeping your big toe flat on the ground. Make sure to keep your big toe relaxed and keep the heel and the ball of your foot on the ground. This may be difficult to do without moving your big toe at first, but it should improve with practice.

## UNILATERAL TOE CURL



With your foot resting on a towel, slowly bunch up the towel by curling your toes. Repeat 15 times per set. Do two sets per session. Do one to two sessions daily.

## HEEL RAISE (SITTING)



Raise your heels, keeping your toes on floor. Repeat 15 times per set. Do two sets per session. Do one to two sessions per day.

If home remedies do not improve symptoms within six to eight weeks, a follow-up evaluation with a podiatrist or orthopaedic surgeon may be necessary.

# Prevention

People are more likely to get plantar fasciitis if they put a lot of wear and tear on their feet. Maintaining a healthy weight and wearing supportive shoes may prevent plantar fasciitis. Stretching exercises are also beneficial and should be done before taking the first step in the morning and after sitting for a long time.

If you would like further education regarding these or other exercises to help heal plantar fasciitis, please call 630.933.1500 to schedule a consultation with a Northwestern Medicine physical therapist. TTY for the hearing impaired 630.933.4833.



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