

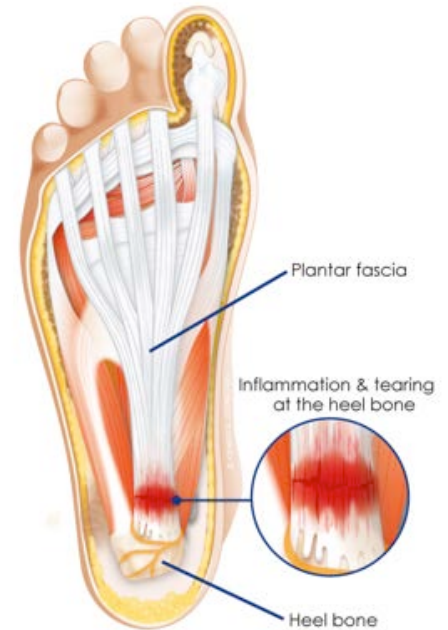
About Plantar Fasciitis

Plantar fasciitis (fashee-EYE-tiss) is the most common cause of pain on the bottom of the heel. Approximately 2 million patients are treated for this condition every year. Plantar fasciitis occurs when the strong band of tissue that supports the arch of your foot becomes irritated and inflamed.

The plantar fascia is a long, thin ligament that lies directly beneath the skin on the bottom of your foot. It connects the heel to the front of your foot, and supports the arch of your foot. It is designed to absorb the high stresses and strains we place on our feet. But, sometimes, too much pressure damages or tears the tissues. The body's natural response to injury is inflammation, which results in the heel pain and stiffness of plantar fasciitis.

In most cases, plantar fasciitis develops without a specific, identifiable reason. There are, however, many factors that can make you more prone to the condition:

- Tighter calf muscles that make it difficult to flex your foot and bring your toes up toward your shin
- Obesity
- Very high arch
- Repetitive impact activity (running/sports)
- New or increased activity



Treatment

Initial treatment can be remembered by the acronym RICE:

R	I	C	E
REST	ICE	COMPRESSION	ELEVATION
Rest from all activities that cause pain.	Place an ice bag on the affected area for 15-20 minutes for the first 24 to 72 hours and/or after activities.	Use an elastic bandage to wrap the affected area using even pressure. Wear this until swelling decreases. Loosen the wrap if your fingers/toes turn blue or feel cold.	Elevated affected area above heart until swelling subsides.

Plantar Fasciitis

1. **Frozen Water Bottle Roll** - Roll your bare injured foot back and forth from your heel to your mid-arch over a frozen water bottle. Repeat for 3 to 5 minutes. This exercise is particularly helpful if done first thing in the morning.

2. **Towel Stretch** - Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot, and pull the towel toward your body. Be sure to keep your knee straight. Hold this position for thirty seconds and repeat three times.



3. **Standing Calf Stretch** - Facing a wall, put your hands against the wall at about eye level. Keep the uninjured leg forward and your injured leg back about 12-18 inches behind your uninjured leg. Keep your injured leg straight and your heel on the floor and keep your toes pointed towards the wall. Next, do a slight lunge by bending the knee of the forward leg. Lean into the wall until you feel a stretch in your calf muscle. Hold this position for 30-60 seconds, and repeat 3 times.



4. **Standing Soleus Stretch** - Facing a wall, put your hands against the wall at about eye level. Keep the uninjured leg forward and your injured leg back about 4-6 inches behind your uninjured leg. Keep both heels on the ground and gently bend your knees until you feel a stretch in your calf muscle. Hold this position for 30-60 seconds, and repeat 3 times.



5. **Plantar Fascia Stretch** - Stand with the ball of your injured foot on a stair. Reach for the bottom step with your heel until you feel a stretch in the arch of your foot. Hold this position for 15 to 30 seconds and then relax. Repeat 3 times. After you have stretched the bottom muscles of your foot, you can begin strengthening the top muscles of your foot.



Plantar Fasciitis

6. **Towel Pickup** - While sitting in a chair with your heel on the ground, pick up a towel with your toes. Release. Repeat 10 to 20 times. When this gets easy, add more resistance by placing a book or small weight on the towel.



7. **Towel Windshield Wipers** - While sitting in a chair with your heel on the ground, pick up a towel with your toes and move foot out and in 10 times. Complete 3 sets of 10.



8. **Arch Squeeze** - Place a chair next to your non-injured leg and stand upright. (the chair will provide you with balance if needed.) Stand on your injured foot. Try to raise the arch of your foot while keeping your toes on the floor. Try to maintain this position and balance on your injured side for 30 seconds. This exercise can be made more difficult by doing it on a piece of foam or a pillow, or with your eyes closed.



9. **Reaching Dynamic Balance** - Place a chair next to your injured leg and stand upright. (the chair will provide you with balance if needed.) Stand on your injured leg and while maintaining your arch height reach forward in front of you with your uninjured side's hand, and behind you with the uninjured leg. Allow your standing knee to bend slightly, then return to starting position. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Complete 3 sets of 10. This can also be done by placing cones or small objects to reach for in a semi-circle.



10. Thera-Band Exercises

A. Resisted Dorsiflexion - Sitting with your leg out straight and your foot near a door, wrap the tubing around the ball of your foot. Anchor the other end of the tubing to the door by tying a knot in the tubing, slipping it between the door and the frame, and closing the door, or have a friend or family member hold the band for you. Pull your toes toward your face. Return slowly to the starting position. Repeat 10 times, and do 3 sets of 10.



B. Resisted Plantar Flexion - Sitting with your leg outstretched, loop the middle section of the tubing around the ball of your foot. Hold the ends of the tubing in both hands. Gently press the ball of your foot down, and point your toes, stretching the THERA-BAND. Return to the starting position. Repeat 10 times, and do 3 sets of 10.



C. Resisted Inversion - Sit with your legs straight out and cross your uninjured leg over your injured ankle. Wrap the tubing around the ball of your injured foot and then loop it around your uninjured foot so that the THERA-BAND is anchored at one end. Hold the other end of the THERA-BAND in your hand. Turn your injured foot inward and upward. This will stretch the tubing. Return to the starting position. Repeat 10 times, and do 3 sets of 10.



D. Resisted Eversion - Sitting with both legs out stretched and the tubing looped around both feet, slowly turn your injured foot upward and outward. Hold this position for 5 seconds. Repeat 10 times, and do 3 sets of 10.

