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PLANTAR FASCIITIS AND HEEL PAIN

Plantar Fasciitis (PF) means inflammation of the plantar fascia, a thick band of connective tissue that spans the arch of the foot from the calcaneus (heel bone) to the bases of the toes. The function of this tissue is to support the longitudinal arch and stabilize the foot and the heel comes off the ground during push off. Individuals with true "plantar fasciitis" have pain and tenderness along the entire longitudinal arch and the discomfort is worse at push off.

Heel pain may be pain associated with plantar fasciitis but is more frequently seen in isolation. Patients with pain and tenderness localized to just the center or inner aspect of the heel and pain on the heel strike are described as having "Heel Pain Syndrome (HPS)." Although in many instances HPS is likely due to inflammation of the plantar fascia at its attachment to the calcaneus (heel bone), it may also be due to a number of other pain process. These other possibilities include nerve entrapment, stress fracture, bone inflammation and bursitis.

At the initial assessment, an X-ray of the heel is usually taken (if a previous one is not available), to rule in or out the possibility of a bone problem causing the pain. Although a heel spur may be identified on this X-ray it remains unclear whether this spur contributes to the pain or not. The fact that many people with this type of spur have no pain and that removing the spur often does not relieve the pain in patients with HPS casts doubt on its role as a cause of the discomfort.

As surgery for HPS and plantar fasciitis has at best inconsistent results, a detrimental effect on normal foot mechanics, and a significant risk of secondary foot pain, non-operative measures are emphasized in the treatment protocol and surgery is considered only a last resort. This hand out is a guide to the stretching exercises we have found most effective in treating HPS. These stretches together with custom shoe inserts specifically fabricated for this condition, we are able to alleviate or ameliorate symptoms in more than 90% of our patients.

HOW TO STRETCH

Stretching is easy to learn. But there is a right way and a wrong way to stretch. The right way is a relaxed, sustained stretch with your attention focused on the muscles being stretched. The wrong way (unfortunately practiced by many people) is to bounce up and down, or to stretch to the point of pain; these methods can actually do more harm than good.

If your stretch correctly and regularly, you will find that every movement you make becomes easier. It will take time to loosen up tight muscles or muscle groups, but time is quickly forgotten when you start to feel good.

THE EASY STRETCH

When you begin a stretch, spend 10-30 seconds in the easy stretch. No bouncing! Go to the point where you feel a mild tension, and relax as you hold the stretch. The feeling of tension should subside as you hold the position. If it does not, ease off slightly and find a degree of tension that is comfortable. The easy stretch reduces muscular tightness and readies the tissues for the developmental stretch.

VARIATIONS OF STRETCH #1

Place the ball of your foot on the edge of a curb or chair, with the rest of the foot hanging down over the edge. Lower the heel below the level of the stair or curb. Go slowly and work on balance. You may need to hold on to the stair railing or a car for balance. The leg of the Achilles tendon and ankle being stretched should be kept straight. Stretch in the easy phase only.

Hold for 20 seconds.

Also do the stretch with you knee slightly bent to change the stretch feeling to a higher part of the Achilles tendon.

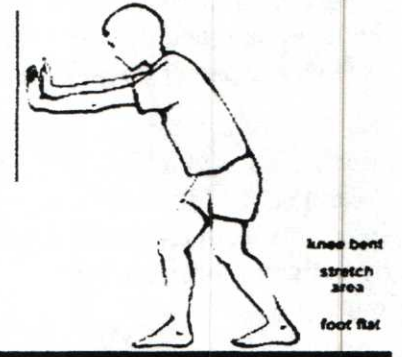
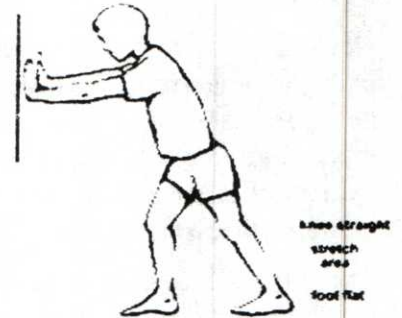


CALF STRETCH #2

To stretch your calf, stand a little way from a solid support and lean on it with your forearms, head resting on hands. Bend one leg and place your foot on the ground in front of you, with the other leg straight behind. Slowly move your hips forward, keeping your lower back flat. Be sure to keep the heel of the straight leg on the ground, with toes pointed straight ahead or slightly turned in as you hold the stretch. Hold an easy stretch for 30 seconds. Do not bounce. Stretch the other leg.

3 sets on each side

To create a stretch for the calf and Achilles tendon, lower your hips downward as you slightly bend your knee. Be sure to keep your back flat. Your back foot should be slightly toed-in or straight ahead during this stretch. Keep your heel down. This stretch is good for developing ankle flexibility. Hold stretch for 25 seconds. The Achilles tendon area needs only a slight feeling of stretch.



STRETCH #3

To stretch the back of the lower leg (calf and soleus muscles), sitting on a chair, pull a towel under the ball of your foot and pull the top of your foot toward your knee. Keep the knee straight and hold the easy stretch for 20 seconds.

3 sets on each side

Do the same stretch but bend the knee slightly. Pull on the towel, pulling the top of the foot toward the knee. Hold an easy stretch for 20 seconds.

3 sets on each side

