

## Exercises for Plantar Fasciitis

*This handout explains exercises to help heal plantar fasciitis.*

### What is plantar fasciitis?

The *plantar fascia* is the flat band of tissue (ligament) that connects your heel bone to your toes. It supports the arch of your foot. If you strain your plantar fascia, it gets weak, swollen, and irritated (inflamed). This condition is called *plantar fasciitis*.



### Why do I need to exercise my foot?

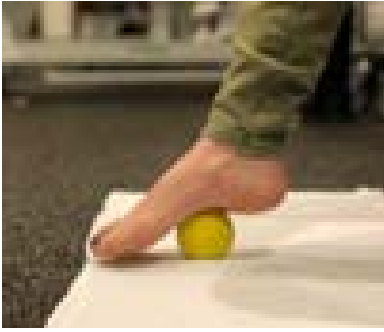
Exercising your foot will help reduce the strain on the tissues on the bottom of your foot. It will also strengthen the muscles that help prevent this injury from coming back.

### What do I need to do?

When doing these exercises, remember that:

- None of these exercises should cause sharp pain. If you have pain while doing one of the exercises, do not do it the next day. Try it again on a later day.
- Your goal is to do all of the exercises 3 to 5 times a day without increased pain or swelling.
- If your foot is more sore or more swollen a few hours or the morning after you exercise, you may have overdone it. If this happens:
  - Do the exercises only 1 time a day instead of 3, or reduce the number of repetitions (reps) you do. For instance, if the instructions say to do 20 reps, do only 10.
  - Apply cold packs for 10 minutes at a time, 2 times a day. (See the exercise “Ball Massage” on page 2, and use a frozen water bottle instead of a ball.)

*In plantar fasciitis, the ligament on the bottom of your foot is inflamed.*



## Exercises

### Ball Massage

This exercise is good to do before and after applying ice to your foot. The bottom of your foot will feel tender as you roll it on the ball, but you should not feel sharp pain. (See photos at left.)

- Sit upright with your feet under your knees. Place a dense ball (such as a lacrosse ball) under your injured foot.
- Apply downward pressure into the ball. Roll it along the arch of your foot, from the ball to the heel.
- Repeat full motion 15 times.

### Toe Yoga

These exercises strengthen the *intrinsic* foot muscles. These are the muscles that help support your arch. When these muscles are strong, they can keep plantar fasciitis from returning. These exercises can be repeated throughout the day.

- Sit upright with your feet about hips-width apart and your feet below your knees.
- Do the exercises shown below with your injured foot. Most people do not find it easy to do each move by itself. Work to activate the right muscles. Even if you don't see the right thing happening, just making the effort will help improve your foot strength and stability.
- Rest briefly between repetitions (reps). Repeat each motion 10 times.

1. Start



2. Raise only big toe



3. Raise only other 4 toes



4. Raise only arch

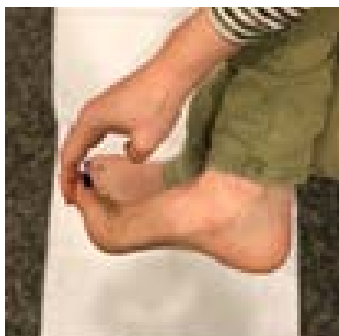




## Big Toe Stretch

The plantar fascia connects all the way from the tip of the big toe to the heel bone. This is why the big toe is an important part of treating the bottom of the foot.

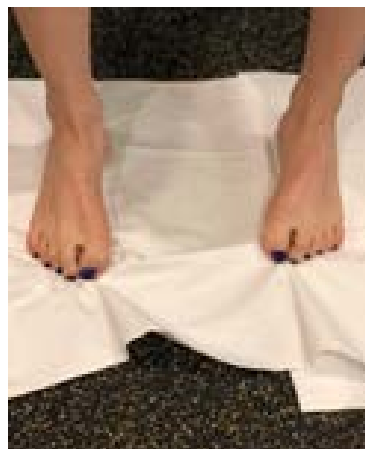
- Sit with your injured foot crossed over the other knee. (See top photo at left.)
- Grasp the underside of your big toe with the hand on the same side of your body. For instance, if you are working with the right foot, use your right hand. Gently pull up until you feel a stretch along the bottom of the foot. Your ankle will also move.
- Hold the stretch 20 seconds, then rest briefly. Repeat 3 to 4 times.



## Towel Pulls

This exercise helps strengthen the muscles in your foot that control your arch. It's best to do this on a wood floor or other smooth surface so that the towel can move easily.

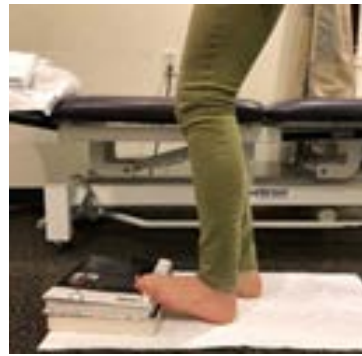
- Spread a kitchen towel flat on the floor in front of a chair or other hard surface. Position the towel so that the long side is toward you.
- Sit on the chair with your bare feet on the towel, about hips-width apart. Make sure your ankles are right below your knees.
- Use your toes to pull the towel toward you, until it's all under your feet. You may have to use your hands to smooth out the wrinkles if it gets too bunched up and hard to move with your toes.
- Repeat 2 times down the width of a standard kitchen towel. This will be about 20 pulls.



## Calf Stretch

The 2 main muscles of the back of the lower leg pull on the heel bone, creating tightness along the bottom of the foot. These muscles are called the *gastroc* and *soleus* muscles.

- Stand with the ball of your injured foot propped on a low surface, such as 1 or 2 books (see photos below).
- Keep your knee straight and your heel touching the ground while you lean forward. You should feel a stretch in the back of your calf muscle. Hold the stretch for 30 seconds and then relax briefly. Repeat 3 times.
- Repeat with your knee bent, still keeping your heel on the ground. Your knee may not bend very much. As before, hold the stretch for 30 seconds and then relax briefly. Repeat 3 times.



## Single Leg Balance

Retraining your balance is very important. The muscles of the ankle and foot need to learn how to support your body weight.

- Stand on both feet on a firm surface. Slowly bend the knee of your healthy foot and lift that foot off the floor (see photo at left).
- Be sure to keep your body straight. Avoid rotating or bending your body at your hips.
- Hold your knee up for as long as you can, up to 20 seconds.
- Focus on feeling the muscles of your foot on the ground as it works to keep your ankle steady. Use your big toe for extra support.
- Relax and repeat 5 times. If your foot feels sore, stop the exercise for now. The next time you do this exercise, hold your knee up for a shorter time.

## Toe Walking

- Stand in a comfortable position. Rise up onto both toes as high as you can.
- Keeping your knees straight, walk forward about 10 to 15 steps. Try to keep pressure on the ball of your foot where your big toe meets your foot. Do not rotate out to the outside of your foot.
- Rest briefly. Repeat 2 to 3 times.



### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UW Medicine Sports Medicine Clinic: Call 206.598.DAWG (3294) and press 2 during clinic hours:

Monday-Thursday: 6:30 a.m. to 7 p.m.

Friday: 6:30 a.m. to 5 p.m.

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