**PLANTAR FASCIITIS EXERCISES**

Plantar fasciitis is a foot disorder in the bottom of the foot usually around the heel. That pain is felt especially when taking the first steps in the morning or after spending some time off the feet. This pain is caused by an injury of the fascia connective tissue at the bottom of the foot. This tissue is called the plantar fascia and it connects the heel bone to the toes. Usually this injury is caused by overuse or overload of the foot. Heel pain remission time can be very long because overloading the foot is a part of the patient’s daily routine and the foot gets injured repeatedly.

The foot is a very complex mechanical structure. Each foot is assembled from 26 bones, 33 joints, more than a 100 muscles, ligaments, tendons and nerves - Yes in one foot. The human foot mechanism is even more complicated and is a little bit different in every individual. The plantar fascia ligament part in the foot mechanism is to keep the foot longitudinal arch structure. It acts almost like a bow string. But this structure is kept also by the other parts of the foot especially the foot’s small muscles. If you exercise your feet this whole structure will get stronger. Stronger foot muscles can support the plantar fascia keeping it from another injury. Stronger feet can make the difference between a chronic heel pain and a treatable foot disorder.

There are a lot of different plantar fasciitis treatments but there is no one treatment that works for everyone. Treatment techniques can be simple, like applying ice on the foot, or very complicated like surgery. One of the most common and effective treatments is exercise. Applying some of the following exercises in your daily routine (2-3 times a day) will make your recovery faster and will keep your feet stronger.

Stretching exercises are used to make muscles and soft tissue longer and more flexible. Short and tight calf muscle may be one of the reasons to the heel pain. Therefore you should stretch your calf muscle and Achilles tendon on a regular basis as long as you keep treating your foot pain. Stretching the plantar fascia at the bottom of your foot is important for keeping a large motion range while walking without injuring the fascia.

Generally whenever you perform a stretch exercise you should not feel pain. If you do feel pain you must stop. You should either use less power on your stretch or perform a different exercise. If you feel strong pain than don’t perform the body weight stretches. Be careful not to overstretch your feet. Before you perform any of the following exercises please consult your physician.

**PLANTAR FASCIITIS EXERCISES:**

1. **The calf raise** – Stand barefoot on the floor and slowly raise your heels up while standing on the balls of your feet and toes. Hold for a few seconds and slowly go back down. For more advanced practice perform this exercise on a stair. Another advanced version is doing the exercise on one foot.

2. **Arch raise** – Sit on a chair with your feet on the floor in a flat and relaxed position. Slightly raise the arches while your toes stay in the same place. Your feet will make a little roll to the side. If you want to make it more difficult you can stand while doing the exercise or even stand on one foot at a time. Performing this exercise on soft surface (like foam or a pillow) will also make it more difficult.

3. **The towel grab** - Put a towel on the floor and using only your toes grab the towel and lift it up.

4. **Walk on a towel** – Fold a long towel into a long tube and put it on the floor. Walk barefoot in balance on the towel back and forth.

5. **Leg balance** – Stand barefoot on one leg trying to keep balance. If you do it without a problem start as you open your eyes and then close your eyes. Start with your heels on the ground and then raise your heels standing balanced on your one leg toes.
6. **Point and Flex** – Point your toes forward while your ankle is straight and hold for a few seconds. Then flex your toes back towards the shin while your ankle comes back.

7. **Ankle Circles** – Move your foot in circles around your ankle, as if you draw a circle with your big toe in the air. Change directions clockwise and counterclockwise. Do many repetitions in each direction, since this is a low impact exercise. You can do this exercise anywhere even with your shoes on.

8. **The Plantar Fascia Stretch** starts when you sit with the ankle of one foot on the knee of the other foot. Pull the toes of the high foot gently towards the shin and hold for 10 to 30 seconds then relax. Repeat this stretch a few times and change legs. You can use this stretch before you get out of bed in the morning to reduce the pain felt in the first steps. The plantar stretch shown in this video is a basic and very effective stretching exercise.

9. **The Towel Stretch** starts as you sit on the floor with your legs stretched in front of you. Put a towel (or a strap or a belt) around the ball of your foot. Slowly pull the ball of your foot with the towel towards you keeping your knees straight. Hold for 10 to 30 seconds then relax. Repeat this stretch a few times and change legs.

10. **The Achilles Stretch** starts as you stand facing the wall. Place your hands on the wall and put one leg back. The back foot should be flat as your heel touches the ground. Move the other leg forward leaning toward the wall until you feel the calf muscle stretch. Hold for 10 to 30 seconds then relax. Repeat this stretch a few times and change legs.

11. **Roll a Ball** is simply rolling tennis or golf ball bellow your foot. Roll it especially bellow the arch to stretch the plantar fascia. Roll more than 2 minutes under each foot.

12. **The Toe Stretch** starts as you sit on the floor with one knee bent towards your body. Hold the toes of that foot with both hands and pull. Hold for 10 to 30 seconds then relax. Repeat this stretch a few times and change legs.

The feet have an important role in keeping balance, posture, gait and overall health. Good balance is essential for daily routine as well as sport performance. You can easily improve your foot flexibility and movement, as well as muscle strength, with these plantar fascitis foot exercises. These exercises work systematically on the foot joints and muscles, tendons and ligaments. Though you are not always motivated or energetic, plantar fasciitis foot exercise is the basis for your recovery and return to normal life.

Stretching is a very simple treatment – everyone can do it everywhere and no equipment is needed. Yet it is a very powerful treatment technique. There is much scientific medical research evidence that shows significant heel pain relief for groups that used to stretch on a regular basis. Make it a habit to stretch at least twice a day using two or more of the above exercises (no need for all of them) and your painful foot disorder will be gone much faster. A good stretching routine is a very strong base for a plantar fasciitis treatment plan.