

Tibialis posterior tendon dysfunction

This leaflet explains more about tibialis posterior tendon dysfunction. If you have any further questions or concerns, please speak to the foot health team.

What is tibialis posterior tendon dysfunction and why do I have it? The tibialis posterior tendon is the main tendon giving support to the arch of the foot. If the tendon becomes injured it can become sore and painful to walk. Injury to the tendon can be caused by repeated small amounts of extra strain, and cause wear and tear on the tendon. This is sometimes called an 'overuse' injury. The condition usually only affects one foot and is most common in women aged 40-50. People who are overweight and have flat feet are more likely to have this condition.



What are the signs and symptoms? Often there will be pain and swelling in the tibialis posterior tendon which runs behind and along the inside of the ankle. Usually, there is no single injury or event which will trigger the pain, as it tends to develop over time. You may have difficulty walking, running or standing on tip toes and your arch height may lower. These tendons take a long time to heal as they have a poor blood supply, so the pain can continue for some time.

Do I need any tests to confirm the diagnosis? Tibialis posterior tendon problems can usually be diagnosed in clinic. Your physiotherapist will take a detailed history and perform a physical examination. Sometimes, the physiotherapist may request imaging such as ultrasound or MRI scans to confirm the diagnosis and check the extent of the injury, but this



is not always needed. They may also request blood tests via your GP if they suspect a more general cause of the symptoms, such as inflammatory arthritis.

What treatments are available? If the tendon is inflamed, using ice for a few minutes at a time may help (use ice for ten minutes, three or four times a day. Remember not to apply the ice to the skin directly, but wrap in a towel). If you are allowed to take them, anti-inflammatories such as ibuprofen may help. Rest the tendon by avoiding too much standing, walking and any activity that causes pain

The tendon usually becomes strained when the arch is excessively stretching. To stop this stretching, shoes with a fastening are essential for daily use. Running shoes or walking boots can give most support, and slip-on shoes and sandals should be avoided. In the short term, the podiatrist will show you how to strap the foot and/or may give you a removable brace to rest the tendon. These need to be applied 100% of the time you are on your feet for at least six weeks. Longer-term, once the pain eases we will prescribe specialised orthoses (insoles) to support your foot. Exercises are important in increasing the healing response and strength of the tendon. If you are wearing the brace, the exercises will also help to improve the tendon strength. The exercises in this leaflet are a gentle introduction. Injection therapies are usually not recommended because they increase the risk of rupturing your tendon.

Exercises to strengthen the tibialis posterior tendon

Use elasticated resistance bands or weights. You can buy these from sports shops or online. These wrap around the front of your foot and fasten.

1 Sit upright with your foot hanging over the edge of a stool, sofa arm or bed. Flex your ankle up towards your body hold for 3 seconds, then flex down and point the toes and hold for 3 seconds.

2 Lie on your side with the foot to be treated on the bottom. Flex your ankle to point your toe inwards, then up towards the ceiling, and then flex down toward the ground.

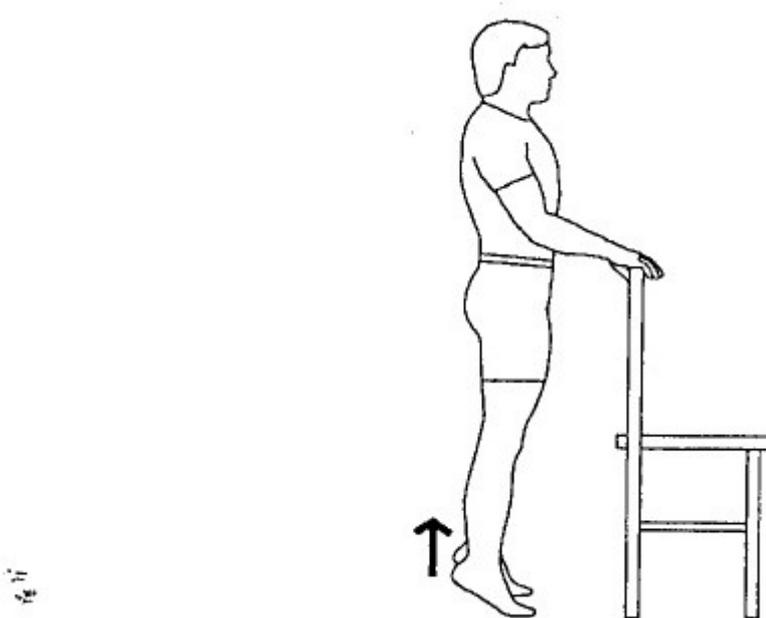
3 Lie on your other side and repeat with the other foot. For each exercise, flex your foot into each position and hold for 3 seconds. Repeat these motions 10 times, rest and repeat three times (30 in total with two short rests). Gradually build up the number of reps from 3 lots of 10, to 5 lots of 20, over a 4-6 week period.

Make sure you control the movement and complete these slowly. Don't let the foot drop! Try and do these exercises five times a week

Loading for tibialis posterior tendon dysfunction

Stand straight with your feet hip width apart, and with a chair or rail to support you. Raise up onto toes and then return. Slowly control this movement: up for 3 seconds and down for 3 seconds. Use a metronome to count seconds.

Complete 6 repetitions 3 times with minute gap between each set.



Add 5-10kg bell dumb/hand weights or weighted shopping bags and gradually increase this weight as your strength builds. Repetitions should feel hard, and there may be some pain. This should improve after 24 hours, if the pain continues reduce the weights used. After several weeks, progress to performing single heel raises on the injured leg. This may take from a few weeks to months, particularly if you have had tibialis posterior tendon dysfunction for a long time.

How do I know if I am doing enough?

Some pain is to be expected when completing these exercises as you are strengthening weakened structures. On a scale of 1-10, where 10 is the worst pain imaginable, your pain level should not increase past 5/10 when completing your exercises or the following day. If the pain does increase, don't stop exercising, but reduce the number of repetitions you are completing each day.



Other treatments

Your podiatrist may look at your gait (the way you walk) and the way you stand, and may decide that you would benefit from specialist orthoses. These devices will be fitted to your feet and shoes, and will be designed to reduce the strain on the tibialis posterior tendon by supporting the arch of your foot. Sometimes, if tibialis posterior tendon dysfunction is not responding to exercises, restive braces or insoles, we may need more information about the condition of the tendon and refer you for scans. Depending on the results, and your response to treatment, we may also discuss referral for a surgical opinion with you. Your physiotherapist will discuss this with you if appropriate.

What happens if I do not receive treatment? If left untreated, the tendon may degenerate and could tear or rupture. The foot can become flat and weak with slower walking or limping that can put additional strain on other areas of the body. A torn or ruptured tendon may require immobilisation in a cast, and surgery, to repair.

Is there anything I can do to help myself? Lifestyle changes: If you are overweight, losing weight will help as it will reduce the load going through the tendon as you walk. If you think you need more help with weight loss, please discuss this with your physiotherapist or GP.

Exercise and physical activity: While the tendon is painful, you should temporarily reduce weight-bearing activity such as running and strenuous walking. It is important to be physically active to improve cardiovascular (heart and breathing) and muscular fitness as well as bone health. The World Health Organization recommends adults complete 2 ½ hours of moderate intensity aerobic exercise, and a form of strength training, twice each week, such as Pilates, tai chi or weight lifting. It is also important that, as the pain improves, you gradually increase running or walking to prevent the pain recurring.