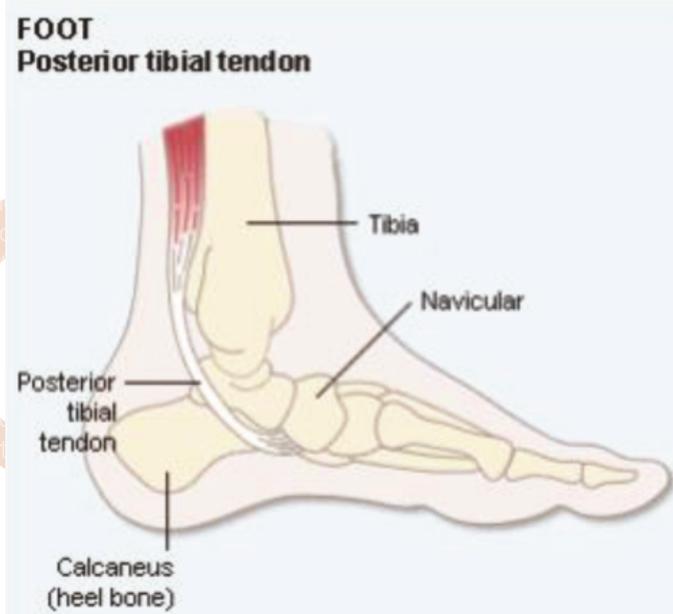


Tibialis Posterior Tendon Dysfunction

**Orthopaedic Department
Patient Information Leaflet**



What is Tibialis Posterior Tendon Dysfunction?

The Tibialis Posterior Tendon (see diagram) is an important structure that works to hold up the arch of the foot. It runs behind the ankle bone on the inside of your ankle (medial malleolus), across the instep and attaches to the bottom of the foot. Sometimes this tendon can become overstretched or inflamed. This can lead to a progressively flat foot.

There are several names for this type of condition such as, tibialis posterior tendon dysfunction, adult acquired flatfoot deformity and tibialis posterior insufficiency. These terms all describe the same condition. There are several factors that contribute to a person developing this problem.

These include:

- Age and gender - Research suggests that this condition develops more often in middle-aged women.
- Flat feet - Many people who develop this condition, already have flat feet. Overuse or constantly high demands on the tibialis posterior tendon can cause it to become inflamed and irritated.
- Other factors - People who are overweight and certain other medical conditions.

What are the symptoms?

People who develop Tibialis Posterior Tendon Dysfunction often complain of several types of symptoms. This will depend on how weakened and inflamed the tendon is and how severe it is.

There are 4 stages of Tibialis Posterior Tendon Dysfunction.

Stage 1 - Tendon is inflamed; Pain and swelling are present just behind the ankle bone on the inside of the ankle and instep.

Stage 2 - More severe pain than Stage 1; Increasingly flatter foot; Unable to stand on tip-toes because inflamed and overstretched tendon is weak; Heel bone starts to “roll out” because tendon is not working properly.

Stage 3 - Heel bone rolled out and flatfoot shape is stiff and fixed in that position. At this stage, patients often also complain of other parts of their ankle becoming painful as well.

Stage 4 - More exaggerated deformity; considerable pain, inflammation and stiffness of the ankle joint itself.

How is it diagnosed?

You will have an examination of your foot and ankle by a doctor or specialist. X-rays are used for diagnosis and to assess the arthritis and alignment of the joints in the foot and ankle. Sometimes ultrasound or MRI scans are used to confirm the diagnosis of the tendon inflammation.

What is the treatment?

There are non-surgical and surgical options to treat Tibialis Posterior Tendon Dysfunction. These will depend on how severe the condition is. This will be determined during your assessment by a doctor or specialist. What are the non-surgical options for Tibialis posterior tendon dysfunction?

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Rest. When a tendon is inflamed, it needs rest in order to recover. This can mean not walking, walking with elbow crutches or walking with a special boot that minimises the weight bearing through the tendon itself.

This allows the tendon to rest and reduce in swelling and pain. Your Consultant will tell you if this is appropriate for you and how to rest.

Medication. Painkillers and anti-inflammatory medications will help with the pain and inflammation. These will therefore help to reduce the discomfort.

Foot wear. Wearing good shoes can help minimise discomfort from Tibialis Posterior Tendon Dysfunction. This includes shoes that are stiff and supportive. You will know if your shoe is sufficiently stiff if when you hold it in your hands, it is difficult to bend in half. Lace up boots that limit the movement of the ankle as well are very helpful.

Weight loss. The tendon's inflammation will be greatly reduced if your body weight is within a normal range.

Orthotics. There are several orthotics options for the treatment of Tibialis Posterior Tendon Dysfunction. These can be either insoles or a more sturdy ankle support. Both of these types of orthotics will fit in your shoes to help your foot and ankle function better.

Physiotherapy

Physiotherapy treatment to reduce inflammation of the tendon, improve muscles' flexibility and strength can improve the pain.

If non-surgical treatment does not improve pain and deformity then surgery may be considered.

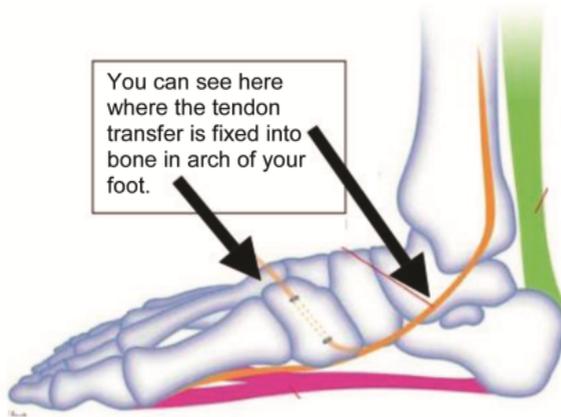
What are the surgical options for Tibialis posterior tendon dysfunction?

There are several types of surgery for the treatment of Tibialis Posterior Tendon Dysfunction. These options include:

1. Debridement of the inflamed damaged tendon.
2. Os calcis Osteotomy and tendon transfer.
3. Corrective fusion of the hindfoot joints (the heel end of the foot).

What is involved in tendon debridement?

This is only considered for stage 1 Tibialis Posterior Tendon Dysfunction when other non-operative options have failed. An incision is made over the damaged tendon and the damaged parts removed and the tendon repaired with stitches.



What is involved in an Os Calcis Osteotomy and tendon transfer?

This type of operation is considered for people with stage 2 or 3 Tibialis Posterior Tendon Dysfunction who still have problems despite non-operative measures.

The operation at this stage aims to improve the position of the heel bone and improve the function of the tendons in the feet. A small incision is made on the outer side of the heel bone. The heel bone is then cut and moved to align it better with the rest of your leg and the foot. This is then fixed with a screw. An incision is made on the inner side of the arch of the foot.

One of the tendons that curls the toes is identified and re-attached to the Navicular bone to replace the failed tibialis posterior tendon. There are other tendons that curl the toes and so this function is not significantly affected by the surgery. You will be able to walk on your foot immediately but will be heel-weight bearing. This means that you will only be walking on the heel of your operated foot for the first 6 weeks. You may require crutches to walk in this manner and a Physiotherapist will show you how to walk like this.

Occasionally some other procedures need to be performed which will be discussed with you by your Consultant Surgeon.

What is involved with Corrective fusion of the hindfoot joints (the heel end of the foot)?

When the foot and ankle have changed shape considerably and there is arthritis in the joints, the only surgical option is re-aligning the ankle joints and fusing them in a good position. The surgery is performed through a number of incisions on the foot. The bones are held in place with screws or staples whilst they fuse together. The screws are usually left in place forever but are occasionally removed if they are prominent and cause pain.

Are there any risks associated with these procedures?

- Stiffness.
- Bleeding.
- Infection. All invasive procedures carry a small risk of infection.
- This is minimised by keeping the foot elevated post-operatively as instructed.
- The ankle and foot continues to be painful. This may occur after any surgical procedure.
- Injury to nerves. Numbness or tingling can occur at the wound or in the foot. This is usually temporary but in some it may be permanent.
- Failure of fusion requiring revision surgery. Research has shown that this occurs in approximately 10% of cases but is significantly greater if you smoke.

- Position (Fusion only). Research has shown that 5-10% of cases do not fuse in the exact position intended. This may be due to the position not being achieved during surgery or movement of the bones following surgery.
- Removal of screws. Occasionally prominent screws may need to be removed.
- Blood clots. Deep vein thrombosis (DVT) or pulmonary embolism (PE) are rare. If you or your family have a history please let us know.
- Need for further surgery.

What do I need to do before the operation?

You will stay in hospital between 1 and 3 days. It is a good idea to get things organised for when you get home. Below is a list of things it might be a good idea to organise:

- Help with household tasks.
- Food cupboards stocked up.
- Help with shopping.
- Help with children, pets and relatives organised for your return home.
- Someone to bring you to and from the hospital.

What can I expect after the operation?

When you arrive back on the ward from theatre your leg will be elevated to reduce swelling.

Your foot will be numb due to the local anaesthetic block. This will gradually wear off over 24 hours.

You will be in half plaster (back slab) for 2 weeks whilst the wounds heal. You will then go into a full plaster for a further 4 weeks.

During the first 2 weeks you will need to keep your foot elevated above the level of your waist for 50 minutes of every hour to avoid swelling, pain and wound healing problems.

During this total 6 week period you will need to be non-weight bearing on the leg affected – this will mean you will be hopping and using crutches or some other sort of walking aid. This will temporarily limit your mobility both indoors and outdoors. During this time the leg still needs to be elevated most of the time.

Following this most patients are placed in a removable boot in which they can partially weight bear with instruction from the physiotherapy department.

Your physiotherapist will assess you for an appropriate mobility aid (e.g. crutches or zimmer frame) and teach you how to walk and climb the stairs without putting your operated leg to the floor.

What happens after discharge from hospital?

You will go home once you are safely able to cope with walking nonweight bearing. Most patients go home after 2-3 days.

You will be seen at the Dressing Clinic in the Orthopaedic department between 10 days to 2 weeks after your operation. At this appointment, the Nurses will check the incision and remove the dressing and stitches if required.

What about pain?

Whilst you are in hospital you will be monitored and the medical staff will give you painkillers as needed.

The Nursing staff will ensure that you know what medications to take for pain when you get home.

Keeping your leg elevated helps to control the pain and minimise the risk of your incision becoming infected.

You will need to keep your leg elevated 50 minutes out of every hour for the first 2 weeks. This prevents your incision from leaking and becoming infected.

When can I return to work?

Your own circumstances will determine when you feel ready to go back to work. If you have an office-type job and you can elevate your leg then you should be able to return to work sooner.

If your job requires a lot of walking or is strenuous then you may need more time off work.

You will need to get a sick certificate from the staff at the hospital before you go home, or from your GP.

When can I return to driving?

You must be free of pain and able to perform an emergency stop. This will also depend on which foot was operated on (right or left).

If you have had left sided surgery and drive an automatic car you may be able to drive 2-4 weeks following surgery.

Your insurance company must be notified regarding the type of operation that you have undergone to ensure that cover is valid.

What should I do if I have a problem?

If you experience severe pain, excessive swelling, inflammation or discharge please report it to your GP. If you cannot contact your GP you should contact A&E.

Useful contact details

Appointments Office:

Telephone: 01253 953540

Hospital Switchboard: **01253 300000**

Patient Relations Department

The Patient Relations Department offer impartial advice and deal with any concerns or complaints the Trust receives. You can contact them via:

Tel: **01253 955589** or by Email: **patient.relations@bfwh.nhs.uk**

You can also write to us at: **Patient Relations Department, Blackpool Victoria Hospital, Whinney Heys Road, Blackpool FY3 8NR**

Further information is available on our website: **www.bfwh.nhs.uk**

References

This leaflet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this leaflet are available on request from: **Procedural Document and Leaflet Coordinator 01253 953397**

Options available

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Our Four Values:

People Centred	Positive
Compassion	Excellence



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Approved by: Clinical Improvement Committee

Reference No: lc00010465 - PL/877 (v1) Date of Publication: 15/08/2016

Review Date: 01/08/2019