## **Posterior Tibial Tendon Dysfunction (PTTD)**

## **Posterior Tibial Tendon**

The Tibialis Posterior tendon runs down the inside of your ankle bone and attaches onto your foot. The role of the muscle is to twist your foot inwards and to point your foot downwards. It also helps to maintain the arch of your foot. (see below)



## What are the symptoms of PTTD?

- People usually complain of pain on the inside of the foot and ankle especially in the morning or after activity.
- The symptoms normally start gradually and may start for no known reason. It may be caused by walking on uneven ground, climbing stairs. It usually subsides with rest.
- There may be some swelling on the inside of your ankle. There may be some redness and warmth to touch.
- You may notice that the arch in your foot has flattened.
- You may have difficulty rising up onto your tip toes.

## What causes PTTD?

Anything that places increased load or stress on the tendon can cause it to become painful.. There are a number of causes, which include the following:

- Poor ankle/foot mechanics; flat footedness.
- Change in footwear
- Poor conditioning; weakness and/or tightness of the leg muscles.
- Sudden increase in training or activity.



## What can you do to help relieve symptoms?

## **Relative Rest**

This does not mean stop all activities but try to reduce the amount of running/walking you do if this aggravated your pain.

#### **Shoe Insoles**

Try wearing footwear that supports the arch of your foot. You can buy 'off the shelf' insoles to put into your shoes or seek advice from your physiotherapist or a podiatrist.

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The use of ice can help with pain and inflammation. Use crushed ice cubes or a bag of frozen peas. Protect the skin from an ice burn by placing the ice pack in a wet towel. Leave in place for 10-15 minutes. It can be reapplied after 2 hours if you wish. It's normal for the skin to become pink with either heat or ice, however if you experience discomfort or a burning sensation remove the item immediately. Don't apply heat or ice packs if you have poor skin sensation or poor circulation, if you are diabetic or over areas of infection.

#### **Medication**

Medications can be taken to help ease the pain and inflammation. Ask your GP or local pharmacist for advice.

#### **Gentle Ankle Movement**

During rest periods the tendon can stiffen up. Before getting out of bed in the morning or if sat for longer than 20-30 minutes move your ankle in all directions to warm-up your tendon.

#### **Exercises**

The advice above will help to settle the tendon, but it is important to complete specific exercises to gradually load and strengthen the tendon. These exercises need to be performed every other day for 12 weeks. The aim is to build up the number of repetitions within your pain threshold.

## 1. Inversion against resistance band



Sitting put a resistance band around the inside of your foot (alternatively use a pair of tights). Tie the band at the side of you for example to a chair (see picture) to apply resistance.

Point your foot down and then inwards against the resistance of the band. Slowly return your foot to the starting position.

Aim to repeat 15 repetitions x 3 sets

## 2. Single leg stance



3. Calf Raises Level 1



Level 2



Practice balancing on one leg. If you feel unsteady or are unable maintain your balance stand near to something stable to hold onto. Aim to stand for 1 minute.

## **Repeat 3 times**

**Tip:** If you find this painful try wearing supportive footwear when you complete the exercise.

## Level 1

Stand facing a wall, using wall for support. Keeping knees straight, rise up on to tip toes, then lower down. Ensure you move upwards and do not rock forwards

Aim to complete 15 repetitions x 3 sets (small rest between sets)

**Tip:** If you find this painful try wearing supportive footwear when you complete the exercise.

Once you can complete these exercises pain free move onto Level 2.

#### Level 2

Stand on bottom step holding onto rail with heels off the edge of a step Keeping knees straight, rise up on to toes, then lower heels as far as pain allows

#### Aim to complete 15 repetitions x 3 sets

**Tip:** If you do not have a step or do not feel comfortable completing exercise on step move to level 3

## Level 3

Progression of Level 1 exercise but standing on one leg

#### Level 4

Progression of Level 2 exercise but standing on one leg holding onto a rail.

Once these exercises become pain free, perform the exercises with weights. You can add some weight inside a rucksack to wear whilst doing the exercises. It is important to continue to build up the weight gradually.

## Important Information when completing your exercises

Some discomfort with the exercises is ok but if your pain is worse later that day or the following morning after completing your exercises, this is a sign that you need to reduce the load or repetitions.

Progress to the next level of exercises when you can complete full sets with no pain. It may take several weeks to progress to the next level.

Continue to complete the exercises for 12 weeks even if your pain has resolved.

As symptoms reduce you can gradually return to activity.

Stop if the pain becomes severe. If you are struggling with these exercises, please seek guidance from a qualified physiotherapist.

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Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

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