

## Posterior Tibial Tendinitis/Flat Foot

Tendons connect muscles to bones and stretch across joints, enabling you to bend those joints. One of the most important tendons in the lower leg is the posterior tibial tendon. This tendon starts in the calf, stretches down behind the inside of the ankle and attaches to bones in the middle of the foot.

The posterior tibial tendon helps hold up your arch and provides support as you step off on your toes when walking. If this tendon becomes inflamed, overstretched or torn, you may experience pain on the inner ankle and gradually lose the inner arch on the bottom of your foot, leading to flatfoot.

### What are the signs of posterior tibial tendinitis/flat foot?

- Pain and swelling on the inside of the ankle
- Loss of the arch and the development of a flat foot
- Gradual development of pain on the outer side of the ankle or foot
- Weakness and an inability to stand on the toes
- Tenderness over the midfoot, especially when under stress during activity



### What causes posterior tibial tendinitis/flat foot?

Progressive flatfoot often occurs in women over 50 years of age and may be due to an inherent abnormality of the tendon. But there are several other risk factors, including:

- Obesity
- Diabetes
- Hypertension
- Previous surgery or trauma, such as an ankle fracture on the inner side of the foot
- Local steroid injections
- Inflammatory diseases such as rheumatoid arthritis
- Athletes who are involved in sports such as basketball, tennis, soccer or hockey may tear the posterior tibial tendon.

### How is it diagnosed?

The diagnosis is based on both a history and a physical examination. As the condition progresses, the front of the affected foot will start to slide to the outside.

You may also be asked to stand on your toes or to do a single heel rise. You will stand with your hands on the wall, lift the unaffected foot off the ground, and raise up on the toes of the other foot. Your doctor may request X-rays, an ultrasound or an MRI of the foot.

### What are treatment options?

#### Conservative Treatment

Initial treatment is with rest, nonsteroidal anti-inflammatory drugs such as aspirin or ibuprofen, and immobilization of the foot for six to eight weeks. After, shoe inserts such as a heel wedge or arch support may be helpful. If the condition is advanced, your doctor may recommend that you use a custom-made ankle-foot orthosis or support. Physical therapy may be recommended by your doctor.

#### Surgical Treatment

If conservative treatment is not successful options include:

**Tenosynovectomy:** In this procedure, the surgeon will clean and remove inflamed tissue surrounding the tendon.

**Osteotomy:** This procedure changes the alignment of the heel bone. The surgeon may sometimes have to remove a portion of the bone.

**Tendon transfer:** This procedure uses some fibers from another tendon to repair the damaged posterior tibial tendon.

**Arthrodesis:** This procedure welds (fuses) one or more bones together, eliminating movement in the joint. This stabilizes the hindfoot and prevents the condition from progressing further.