Orthotics4U.com | Dr. Milton J. Stern, DPM
Patient Education

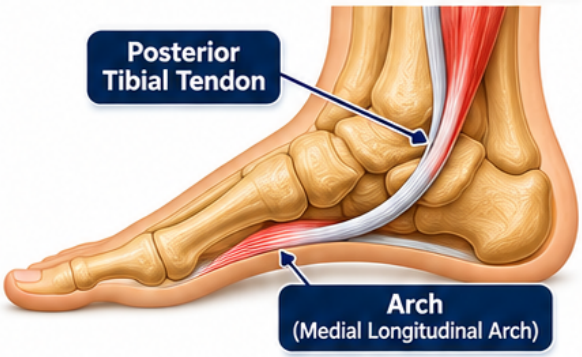
POSTERIOR TIBIAL TENDON DYSFUNCTION (PTTD)

Causes, Symptoms, Stages, Treatment & the Role of Orthotics



What Is PTTD?

Posterior tibial tendon dysfunction (PTTD) is a condition in which the posterior tibial tendon becomes irritated, stretched, or torn, leading to loss of arch support, increased foot flattening, and pain along the inside of the ankle and foot.



Common Symptoms

- **Pain and swelling** along the inside of the ankle.
- **Aching** in the arch, often worse with standing or walking.
- **A gradual flattening** of the arch ("fallen arch").
- The foot may roll inward (pronation).
- **Difficulty** with prolonged walking, exercise, or uneven surfaces.

What Causes It?

PTTD most often results from a combination of factors, including:

- **Overuse and repetitive stress** (e.g., walking, running, or sports).
- **Biomechanical abnormalities** (such as flat feet or excessive pronation).
- **Aging and degenerative changes** (weakening of the tendon over time).
- **Obesity**, which increases the load on the tendon.
- **Prior injury or inflammation** of the tendon.

Stages of PTTD



Stage I	Stage II	Stage III	Stage IV
Tendon irritation (pain, little or no deformity)	Tendon weakening with a flexible flat foot	More pronounced flat foot with rigidity	Severe deformity with ankle joint involvement

Treatment Options

Treatment depends on the stage and severity and may include:

- **Activity modification** – reduce high-impact activities that aggravate symptoms.
- **Immobilization** – a brace, walking boot, or cast (to allow the tendon to heal).
- **Physical therapy** – to reduce pain, strengthen the tendon and supporting muscles, and improve balance.
- **Anti-inflammatory medication** – to decrease pain and swelling (as recommended by your doctor).
- **Custom orthotics** – to support the arch, control pronation, and reduce stress on the tendon.
- **Surgery** – considered for more advanced stages or when conservative care is not effective.





Custom Orthotic with Arch Support and Motion Control

How Orthotics Help

- **Support and re-establish the arch** to reduce strain on the posterior tibial tendon.
- **Control excessive pronation** (inward rolling) that contributes to tendon overload.
- **Improve foot and ankle alignment** and overall biomechanics.
- **Reduce pain and inflammation.**
- **Help prevent progression of the condition** and the development of a more severe deformity.