

AAP BRS podcast: Foot and Ankle

Achilles Tendinosis (tendonitis): Overuse injury of the Achilles tendon characterized by inflammation

- **Presentation:** Posterior ankle pain, **subacute/chronic onset**, association with increased high-impact training, morning stiffness; Sudden increase in mileage or training intensity
- **Evaluation:** Tenderness to palpation associated with decreased ROM (specifically dorsiflexion), **Thompson test NEGATIVE** (96% sensitive, 93% specific for complete Achilles rupture).
- **Imaging:** Ultrasound of the Achilles tendon showing **thickening, areas of hypoechogenicity (reduced, black-appearing areas), and neovascularization** on Doppler. Assess for associated tears/continuity of tendon fibers
High-risk “watershed” area 2-5 cm proximal to insertion
- **Management:** Rest, ice, NSAIDs; Physical therapy with an emphasis on **eccentric strengthening and progressive loading** of the tendon. If failing this management, can consider US guided percutaneous tenotomy. *Steroids are usually avoided due to increased risk of tendon rupture*

Achilles Tendinosis

Subacute/chronic onset
Thompson test negative
US shows thickening, hypoechogenicity and neovascularization

Achilles Rupture

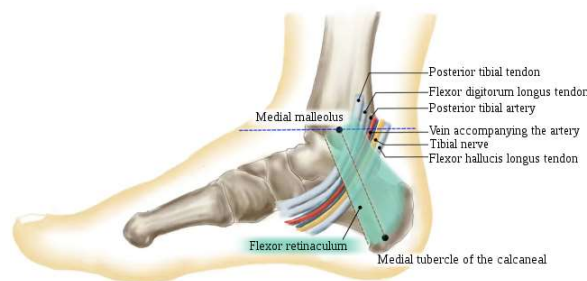
Acute onset
Thompson Test positive
US shows area(s) of tendon fiber discontinuity

Dancer’s Tendonitis aka FHL Tendonitis: Overuse injury due to repetitive/forceful plantar and dorsiflexion

- **Evaluation:** **Tenderness to palpation along FHL** (when placed in passive dorsiflexion), pain with resisted flexion of the great toe. **Tomasen’s Test** positive;
- Specifically evaluate at the **Knot of Henry** (crossover of FHL and FDL), **intersesamoid tunnel**, and **tarsal tunnel**.
- **Imaging:** XR if concerned for fracture, POC US with ROM to assess for tendon impingement and tear
- **Management:** Rest, ice, NSAIDs, and consider CAM
- boot for more severe cases; Gradual return to activity once patient is pain free;
- **Avoidance of aggravating movements such as pointe position or moving from plie to relevé position in dance.** Continued stretching, proper warm up, and strengthening



Tarsal Tunnel



“Tom, Dick, And Very Nervous Harry”

- posterior **Tibialis** tendon
- flexor **Digitorum** longus tendon
- posterior tibial **Artery**
- posterior tibial **Vein**
- tibial **Nerve**
- flexor **Hallucis** longus tendon

Tarsal Tunnel Syndrome

Compression of the **Tibial Nerve** in the Tarsal tunnel; presents as **sharp, shooting pain and numbness on the medial plantar** aspect of the foot

- Heel sensation may be spared due to medial calcaneal branch departing proximal to the tunnel
- Intrinsic foot weakness due to tibial nerve innervation of foot

Bursitis

Most common location for bursitis in the foot and ankle is **retrocalcaneal bursitis**; often associated with Haglund deformity

Anterior Ankle Impingement

- Decreased ROM with dorsiflexion associated with a “locking” sensation and pain.
- XR with evidence of **osteophyte on the anterior tibiotalar joint**.

