SOUTH BEND ORTHOPAEDICS

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FLEXOR HALLUCIS TENDONITIS/TENDONOSIS

The flexor hallicus longus (FHL) arises off the posterior border of the fibula and passes posterior to the ankle in a tendon sheath that binds it to the talus and calcaneus forming a fibrosseous tunnel. The FHL then passes posterior to the subtalar joint between the medial and lateral tubercle of the talus amd then plantar to the sustentaculum tali. The FHL then crosses dorsal to the flexor digitorum longus (FDL) at the Knot of Henry (where there are some intertendinous connections) dorsal to the intersesmoid ligament and then inserts at the distal phalanx of the hallux. The primary function of the FHL is active plantar flexion at the 1st metatarsophalangeal (MTP) and hallux distal interphalangeal joint. The FHL also assists with ankle plantar flexion and inversion. It is also a passive restraint to dorsiflexion at the 1st MTP joint.

FHL tenonditis/tendonosis is manifested as posterior medial ankle pain, pain posterior to the medial malleolus, arch pain and great toe discomfort. Symptoms may also present as clicking or locking of the great toe, pain, swelling and crepitus posterior to the medial malleolus. Swelling and inflammation of the FHL at each of these sites can give rise to pain and altered mechanical function of the FHL. Pain is reproduced with forced plantar flexion of the foot or forced dorsiflexion of the great toe while the ankle is in full plantar flexion.

FHL tendonitis / tendonosis most often results from an acute plantar flexion injury or chronic repetitive overuse. It is frequently seen in dancers or athletes that perform excessive plantar flexion.

When assessing for FHL tendonitis/tendonosis, it is important to differentiate it from os trigonum, posterior tibial tendonitis, plantar fasciitis and hallux rigidus.

GENERAL REHABILITATION GUIDELINES

Phase I - Initial Acute Phase

GOALS:

- Active Rest (Avoidance of excessive plantar flexion, heel lifts or heel raise exercises)
  - Stretching of Achilles, Hamstrings, ITB, Piriformis and gluteal musculature
  - Gentle stretching of FHL (for early mobilization to promoted healing)
  - Hallux plantar flexion / dorsiflexion AROM in pain free range (high reps low loads to promote early mobilization and soft tissue healing)
  - Ankle AROM in pain free ranges
- Ice & NSAIDS
- Ultrasound and Iontophoresis to promote increased blood flow and to decrease acute inflammation.
- McConnel taping or Kinesiotaping to unload inflamed tendon

Phase II Sub-Acute Phase / Progression (As Symptoms Decrease)

GOALS:

- Continue with McConnel taping or Kinesiotaping as needed to unload FHL
- Evaluate and modify existing shoe wear to provide necessary support to unload FHL tendon
- Progress with FHL tendon loading with open and closed kinetic chain exercises (thera-band, cuff weights, heel raises, lunging / weight – shifting)
- Proprioceptive exercises (Single leg balance progression, BAPS, rocker board, etc….)
- Hip and core strengthening to improve lower extremity dynamic stability
- Progress into plyometric exercises to improve hip and lower extremity power for dynamic impact activities.

It is not uncommon for your pain level to slightly increase during the first week of exercising. Continue the program for a minimum of 4 weeks. At the end of 4 weeks, if you do not notice improvement in your condition consult your physician or therapist. If your pain is diminishing, continue the program for 2 - 3 weeks after your symptoms have ceased to ensure the condition does not return.

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Consult with your physical therapist or doctor if you experience an increase in your symptoms with recommended exercises, or if you develop new symptoms of numbness, tingling or a spread of the pain. This information is not intended to diagnose or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult your doctor.

REFERENCES:

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