Tarsal Tunnel Syndrome refers to inflammation of the posterior tibial nerve as it passes through a soft tissue tunnel behind the medial malleolus and enters the foot. Poor foot mechanics, primarily hyperpronation, or direct trauma to this area may cause increased pressure in and around the nerve. As a result, the patient usually will complain of radiating pain, numbness and/or tingling along the course of the nerve. Conservative management includes NSAID’s, modalities, desensitization, soft tissue massage, ROM, stretching, strengthening, footwear modifications and orthotics. Surgical management involves release of the flexor retinaculum over the tarsal as well as release of the fascia to the abductor hallucis muscle. This allows for freedom of the nerve and loss of compression. Plantar fascia release refers to the release of the medial fibers of the plantar aponeurosis and occasionally in non-athletic patients the entire aponeurosis. Even partial release may be associated with increased lateral column overload which must be addressed throughout the rehabilitation process. Not only proper strengthening, balance and proprioception is emphasized but shoewear and foot orthosis must be addressed.

First Postoperative visit:

Nursing: (14-17 days)
1. The patient’s wound is evaluated and the sutures should not be removed unless the wound is completely dry and healed. Steri-strips applied.
2. The patient is placed in a walker boot or short leg cast per physician orders. The patient should keep the walker boot/cast on for 3 weeks even during sleep.
3. The patient should be referred to Physical Therapy (if casted once cast removed) at 4-6 weeks s/p and f/u with the physician 4-6 weeks post-operatively.

Physical Therapy Post-Operative Recommendations (4-6 weeks):

- Physical therapy 1 - 3 times per week for 6-8 weeks
- Icing 3 - 4 times per day to facilitate pain and edema control
- Avoid impingement or “Tarsal Tunnel” like symptoms as well as excessive pronation with plantar fascia releases. Monitor for lateral column impingement with all activities.
- If the patient's ROM is appropriate, the number one complication is progressing the rehabilitation too quickly and stimulating paresthesias.

4-6 Week Post-Op

- Decrease inflammation and pain
- Increase ROM
  1. Modalities as indicated for pain and edema control.
2. Gentle ROM to tolerance.
3. Wean from crutches.

6-8 Weeks Post-Op

- Normalize gait and progress to appropriate shoe wear as tolerated.
- Increase strength, flexibility and balance throughout the entire lower quarter
- Improve biomechanics
  1. Soft tissue massage/scar mobilization and desensitization techniques.
  2. Resisted dorsiflexion, plantarflexion and eversion with theraband. Begin resisted inversion as symptoms allow.
  4. Static balance training.
  5. Closed chain strengthening (e.g. squats, weight shift lunges, etc.).
  7. Once gait has normalized, perform Lower Extremity Biomechanical Evaluation (lower extremity flexibility, strength, ROM, alignment, etc.). Recommendations related to footwear and custom foot orthoses made based on findings.

8-10 Weeks Post-Op

- Independent with activities of daily living (ADL’s)
  1. Dynamic balance training.
  2. Dynamic lunges.
  3. Endurance training on bicycle as tolerated.

8+ Weeks Post-Op

- Return to unrestricted work- and sports-related activities as determined by physician
  1. Non-athlete: Discharge from physical therapy once independent with ADL’s and work-related activities.
  2. Athlete: Begin sport-specific training (interval running program, agilities, etc.).