ANDREWS INSTITUTE
ORTHOPAEDICS & SPORTS MEDICINE
An Affiliate of Baptist Health Care

REHABILITATION PROTOCOL
POSTERIOR TIBIAL TENDON RECONSTRUCTION

GENERAL PRINCIPLES / PRECAUTIONS

- Non-weight bearing while in splint for 4 weeks. Attempt to progress to full weight bearing by week 6.
- Foot is initially splinted / casted in equinus and varus position. Will progress to short leg or cast in slight plantigrade and inverted position.
- This protocol, as well as most others, is a general guideline. Patients should not be progressed to the next phase until they demonstrate proper form with all activities and all criteria are met in the current phase.
- When clinically appropriate, properly assess the whole body and incorporate treatment for loss of mobility and stability. Not doing so can prevent optimal outcomes and increase risks of future injuries.

MAXIMIMUM PROTECTION PHASE (Weeks 1-4)

- **Goals:**
  - Protect healing tissue
  - Control pain and swelling
  - Control weight bearing forces
  - Independent transfers and ambulation

- **Precautions**
  - Weight-bearing: NWB with optimal ambulatory assistive device for 4 weeks
  - Splint/Brace: Foot is placed into equinus and varus position in cast/splint

- **Treatment:**
  - Transfer and gait training with assistive device, NWB on surgical lower extremity
  - Patient education and independent HEP
  - 4-way SLR
  - AROM Hip and Knee
  - Lower extremity stretching – hamstring, quads, ITB, Hip flexors as needed
  - Elevation

MODERATE PROTECTION PHASE (Weeks 4-8)

- **Goals:**
  - Minimize Atrophy in lower extremity
  - Weight-bearing: WBAT using appropriate assistive device, discharge when gait is normal and pain free
- **Precautions**
  - Splint/Brace: Short leg walking cast – slight plantigrade / inverted position

- **Treatment:**
  - Continue appropriate previous exercises
  - Isometrics x 4 directions
  - Modalities as needed
  - Scar Massage / mobilization

STRENGTHENING AND MOTION PHASE (Weeks 8-16)

- **Goals:**
  - Symmetrical AROM
  - Normal gait
  - Pain-free ADL activities

- **Precautions:**
  - Weight-bearing: FWB with foot/ankle in Cam Walker Boot

- **Treatment (Weeks 8-11)**
  - Continue previous exercises as appropriate
  - Ankle AROM
    - Ankle pumps, alphabet, rotations
  - Theraband exercises x 4
    - Light pain-free resistance
  - Proprioception training (in cam walker boot)
    - Standing balance, single leg stance activities, medicine ball progressions
  - CKC Exercises
    - Mini-squats, leg press/total gym, straight knee mini-band walking (forward, backward, lateral)
  - Gastroc / Soleus stretching

- **Treatment (Weeks 12-16)**
  - Transition from cam walker boot to ankle brace
  - Continue appropriate previous exercises without brace
  - Progressive ankle strengthening exercises
    - Emphasize medial musculature strengthening
  - CKC Exercises
    - Double Leg Heel Raises, Forward/Retro/Lateral step-downs, bent knee mini-band walking (forward, backward, lateral)
  - Stationary Bicycle
  - Aquatic Therapy
    - Deep-water training, Aquatic treadmill walking (shoulder level to waist level)

MINIMAL PROTECTION PHASE (Months 4-6)

- **Criteria for entering Advance strengthening:**
  - Minimum 4/5 Ankle Manual Muscle Testing
  - Symmetrical pain-free AROM
  - Pain-free ADL activities

- **Goals:**
  - Normal Strength (5/5 MMT)
  - Walk 2 miles at 15 minutes/mile pace without pain

- **Treatment:**
  - Continue ankle brace and previous exercises as appropriate
  - CKC Exercises
    - Progress to single leg heel raises
  - Aerobic Activities
    - Elliptical, Stairmaster, Treadmill walking progression
  - Agility Drills / Proprioception
  - Aquatic Therapy
    - Progress to aquatic treadmill running progression program

DISCHARGE TESTING / PLANNING (usually after 6 months post-op)

- Based on a patient's age, gender, and level that they are returning to (i.e. recreational, amateur, professional) a decision is made to endorse their return to sport/ higher level activity or to ask the patient to refrain from doing so. Currently our criterion includes, but is not always limited to the following.
    - Demonstrate quality and symmetrical movement throughout the body evaluated with comprehensive movement screen or assessment process.
    - Symmetrical and acceptable comprehensive scores on CKC LE testing
- Biomechanical assessment of their performance helps safe return to sport / higher level activity. Patient's may be videoed and analyzed doing activities such as running, jumping, hitting or throwing to see if sound body mechanics are being utilized.
- Not all patients who have undergone tibial tendon repair are candidates for functional testing. Those undergoing these tests should be chosen with proper consideration given to what they plan to return to and their general fitness level.
- No matter how well a patient is doing with return to sport testing it is prudent to remember how important time is to full healing and safe return to sport / activity.
- Patients often schedule periodically during this phase to assess their progress and properly change their program until they are deemed safe to return to all activities.