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## POSTERIOR TIBIAL TENDON RECONSTRUCTION REHABILITATION PROTOCOL

### FOR PATIENTS

#### Recovery at a glance:

- “Early / Mild”
  - Non-weight bearing 2 weeks in a boot, followed by 6 weeks of protected weight bearing in a boot
  - Transition into regular shoe wear at 8 weeks post op
  - At 6 months anticipate considerable improvement
  - One year for maximal improvement
- “Late / Moderate to Severe”
  - Recovery not limited by tendon reconstruction but rather bony correction and associated healing
  - Non-weight bearing for 4 to 6 weeks in a cast, followed by 4-6 weeks of protected weight bearing in a boot
  - Begin physical therapy 4-6 weeks post op
  - Transition into regular shoe wear as tolerated at 10-12 weeks post op
  - One year until maximal improvement

### FOR PHYSICAL THERAPISTS

- **PLEASE NOTE:** The guidelines noted in this protocol, particularly as relates to phase IV – VI are likely to be significantly delayed in late stage reconstructions due to the prolonged non weight bearing and extent of surgical correction (bone and soft tissue) and thus milestones will be delayed by approximately 6 to 12 wks. The extent of reconstruction necessary and surgeon discretion are useful in prediction of recovery time

### Detailed recovery / rehabilitation protocol:

#### Phase I: Weeks 1-2

##### Goals

- Rest
- Control swelling and pain
- Activities of daily living

## **POSTERIOR TIBIAL TENDON RECONSTRUCTION REHABILITATION PROTOCOL**

### Guidelines

- Non weight bearing in cast or boot
- Sutures removed at 14 to 21 days
- Education: surgery, healing time, anatomy, phases of rehabilitation
- Encourage activities of daily living
- Rest and elevation to control swelling
- Control pain
- Hip and knee active range of motion

### **Phase II: Week 3-6**

#### Goals

- Full weight bearing in cast or boot with no swelling (early stage)
- Continue non weight bearing (late stage)

#### Guidelines

- Shower without boot
- Elevation to control swelling
- Start to weight bearing (early stage only)
- Massage for swelling
- Gentle active range of motion: ankle and foot: plantar flexion / dorsiflexion / eversion / and toe flexion / extension (2x/day @ 30 repetition)
- NO active inversion
- Progress to stationary bicycle in boot (early stage only)

### **Phase III: Week 7-10**

#### Goals

- Full weight bearing without boot (early stage)
- Full weight bearing with boot (late stage)
- Full plantar flexion and dorsi flexion

## **POSTERIOR TIBIAL TENDON RECONSTRUCTION REHABILITATION PROTOCOL**

### Guidelines

- Wean from walker boot by  $\pm$  week 8 (early stage)
- Use an ankle brace during daytime (early stage)
- Control swelling with elevation and modalities as required
- Stationary bike
- Active range of motion ankle and foot in all directions: gentle inversion & eversion
- Mobilization of foot and ankle in directions that do not directly stress repair (continue to avoid active inversion and passive eversion)
- Muscle stimulation to intrinsics, invertors and evertors as necessary

### **Phase IV: Week 11-12**

#### Goals

- Full active range of motion ankle and foot
- Normal gait pattern (early stage)
- Gait training and regular shoe/gear transition (late stage)

#### Guidelines

- Manual mobilization
- Start proprioception and balance
- Continue Phase III rehab

### **Phase V: Week 13-16**

#### Goals

- Full functional range of motion all movements in weight bearing
- Good balance on surgical side on even surface
- Near full strength lower extremity

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### Guidelines

- Emphasize 1. Proprioception:- single leg, even surface – single leg, even surface, resistance to arms or non weight bearing leg – double leg stance on wobble board, Sissel, Fitter – single leg stance on wobble board or Sissel
- Strength: toe raises, lunges, squats, hopping (14+ weeks), running (14+ weeks), bench jumps (14+ weeks)
- Manual mobilization to attain normal glides and full physiological range of motion

### Phase VI: Week 16+

#### Goals

- Full function • Good endurance

#### Guidelines

- Continue building endurance, strength and proprioception
- Plyometric training