

Physical Therapy Protocol – Tibial Tubercle Osteotomy

Name: _____

Date: _____

Diagnosis: R / L TTO

Frequency: 2-3 Times Per Week for ____ weeks

Weeks 0-6: *period of protection, healing, decreasing edema, quadriceps activation*

- **Weightbearing:** Heel-touch WB in brace locked in extension with crutches
- **Hinged Knee Brace:**
 - o **Weeks 0-2:** locked in full extension for ambulation and sleeping (remove for PT)
 - o **Weeks 2-6:** unlock from 0-90 for all activities, remove when sleeping
- **Range of Motion:** AROM/AAROM/PROM with therapist with goal of 90 degrees of flexion by week 2 and full ROM by week 6
- **Therapeutic Exercises:** calf pumps, gentle patellar mobs, quad sets, SLR in brace locked in full extension until quad strength prevents extension lag, begin floor based core/glute exercises
- **Modalities:** per therapist including E-stem, ultrasound, heat before therapy and ice after

Weeks 6-12:

- **Weightbearing:** advance 25% weekly until full WB with normalized gait pattern
- **Hinged Knee Brace:** unlock for all activities and discontinue completely at week 8 if good quad control
- **Range of Motion:** progress to full, painless ROM by 6 weeks
- **Therapeutic Exercises:** advance from above, advance floor-based core/glute exercises; SLR without brace if good quad control, partial wall-sits, terminal knee extension with TheraBand 0-45, stationary bike at 6 weeks
- **Modalities:** per therapist including E-stem, ultrasound, heat before therapy and ice after

Weeks 12-16:

- **Weightbearing:** full
- **Hinged Knee Brace:** none
- **Range of Motion:** progress to full, painless ROM
- **Therapeutic Exercises:** advance above, advanced close chain quad exercises, work on functional balance and core strengthening, progress with stationary bike, begin slow treadmill walking and add **elliptical at 12 weeks, swimming at 12 weeks**
- **Modalities:** per therapist including E-stem, ultrasound, heat before therapy and ice after

Weeks 16-24: advance above exercises, focus on core/glutes; progress flexibility and strengthening; maximize single leg dynamic and static balance and strength; initiate light plyo; improve treadmill walking and emphasize normal gait

> 6 Months: gradual return to athletic activity and sports participation after functional sports assessment, encourage maintenance program, single leg dynamic and static balance, return to sport and impact when cleared by MD no sooner than 6 months