

Tibial Tubercle Osteotomy

PHASE I (Weeks 0 – 6): Period of protection, decrease edema, activate quadriceps

- **Weightbearing:** Heel-touch WB in brace locked in extension with crutches
- **Hinged Knee Brace:**
 - **Weeks 0-2:** Locked in full extension for ambulation and sleeping (remove for PT)
 - **Weeks 2-6:** Unlock at 0-90° for all activities, remove when sleeping
- **Range of Motion:** AROM/AAROM/PROM with therapist; goal of 90° by week 2 and full ROM by week 6
- **Therapeutic Exercises:** calf pumps, gentle patellar mobs, quad sets, SLR in brace, begin floor-based core/glute exercises
- **Modalities:** Per therapist, including electrical stimulation, ultrasound, heat (before), ice (after)

Phase II (Weeks 6 – 12)

- **Weightbearing:** Advance 25% weekly until full WB with normalized gait pattern
- **Hinged Knee Brace:** Wean between 6-8 weeks; discontinue completely once good quad control
- **Range of Motion:** Progress to full, painless ROM by 6 weeks
- **Therapeutic Exercises:** Advance Phase I exercises, advance floor-based core/glute exercises; SLR without brace if good quad control, partial wall-sits, terminal knee extension with theraband 0-45°
 - Begin gentle stationary bicycle at 6 weeks
- **Modalities:** Per therapist, including electrical stimulation, ultrasound, heat (before), ice (after)

Phase III (Weeks 12 – 16)

- **Weightbearing:** Full
- **Hinged Knee Brace:** None
- **Range of Motion:** Full, painless
- **Therapeutic Exercises:** Advance Phase II exercises, advance closed chain quad exercises, work on functional balance and core strengthening, progress with stationary bike; start slow treadmill walking
 - Add elliptical at 12 weeks
 - Swimming allowed at 12 weeks
- **Modalities:** Per therapist, including electrical stimulation, ultrasound, heat (before), ice (after)

Phase IV (Weeks 16 – 24)

- Advance Phase III exercises; focus on core/glutes; progress flexibility and strengthening; maximize single leg dynamic and static balance and strength; initiate light plyometrics; improve treadmill walking

Phase V (>6 months): Gradual return to athletic activity

- Advance Phase IV exercises; focus on single leg dynamic and static balance
- Return to sport-specific activity and impact when cleared by MD at 6 months postop