

## Rehabilitation Protocol: Tibial Spine Fracture Repair

### Phase 1 (Weeks 0-4)

- **Weightbearing:**
  - TTWB with crutches (**Weeks 0-2**)
  - WBAT with crutches (**Weeks 2-4**)
- **Hinged Knee Brace:**
  - Locked in full extension for ambulation and sleeping
  - Unlock brace for seated/supine ROM exercises per parameters below
- **Range of Motion:**
  - AROM/AAROM 0-30° (**Weeks 0-2**)
  - AROM/AAROM 0-90° (**Weeks 2-4**)
- **Therapeutic Exercises**
  - Quad/Hamstring sets and heel slides
  - Non-weightbearing stretch of the Gastroc/Soleus
  - Straight-Leg Raise / Isometrics with brace in full extension

### Phase 2 (Weeks 4-8)

- **Weightbearing:** As tolerated with crutches. Okay to discontinue crutches at 6 weeks if gait stable.
- **Hinged Knee Brace:**
  - Set brace to allow for ROM 0-30° for ambulation. Remove brace when at rest and for seated/supine PT exercises.
- **Range of Motion:** Maintain full knee extension – work on progressive knee flexion as tolerated
- **Therapeutic Exercises**
  - Okay to begin blood flow restriction therapy
  - Closed chain extension exercises, Hamstring stretching, Toe raises, Balance exercises
  - Progress to weightbearing stretch of gastrocnemius/soleus
  - Begin use of stationary bicycle

### Phase 3 (Weeks 8-16)

- **Weightbearing:** Full weightbearing, discontinue crutch use
- **Brace:** Continue brace for ambulation until patient has achieved appropriate quadriceps control and extensor lag is eliminated. Okay to discontinue brace once those goals have been achieved.
- **Range of Motion:** Active/Passive ROM as tolerated
- **Therapeutic Exercises**
  - Begin hamstring strengthening
  - Advance closed chain strengthening exercises, proprioception activities
  - Begin use of Stairmaster/Elliptical at 8 weeks
  - Can start straight ahead running at 12 weeks

### Phase 4 (Months 4-6)

- Maintenance program for strength and endurance
- Gradual return to athletic activity