



# GOLDEN STATE ORTHOPEDICS & SPINE

## TIBIAL EMINENCE FRACTURE POST-OP PROTOCOL

### OVERVIEW

- Focus on protection of fixation in primary phase (Weeks 0 - 6)
- OK to shower on post-op day 3. **NO bathing/soaking knee** until cleared by physician
- **Elevation, Cryocuff** x 2 weeks
- **TROM Brace:** 8 weeks Total
  - Week 0-2: Toe-Touch WB (Full Extension)
  - Week 3-4: Partial WB (Full Extension, D/c crutches after 4 weeks)
  - Week 5-6: WBAT (Full Extension)
  - Weeks 7-8 (Unlock brace in 30° increments, unlocked and off after Week 8)
- Sleep with brace on & locked in extension x **2-3 weeks**
- **Crutches:** 4 weeks total (0-2 = TTWB, 3-4 = PWB, 4-6 = WBAT)
- Supervised Physical Therapy for 3-4 months

### PHASE 1: Post-Op Through Week 6

#### Goals:

- Protect fracture fixation with use of brace and specific exercises
- Minimize effects of immobilization, inflammation & edema (Cryocuff x 2 weeks)
- Advance to Full WB, Wean off crutches, Obtain Motion

#### Brace (Total Length = 8 weeks):

- **Week 0-3:** Brace locked in full extension for ambulation and sleeping
- **Weeks 4-6:** WBAT in extension. OK to d/c brace when sleeping
- **Week 6-8:** Begin unlocking in 30° increments every 3-4 days. Unlocked by start of Week 8 and d/c after Week 8

#### Weight-Bearing:

- **Week 0-2:** Toe-touch WB
- **Week 3-4:** Partial WB
- **Week 5-6:** Wean from crutches as patient demonstrates normal gait mechanics and improving quad control

#### Range of Motion (see exercises below):

- AAROM → AROM as tolerated
- Maintain full extension and work on progressive knee flexion
  - 0° - 90° by Week 3
  - 0° - 125° by Week 6

#### Exercises

- Patellar mobilization/scar mobilization
- Quad sets, Hamstring Curls, Heel slides



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### Exercises (cont)

- Non-weight bearing stretching of Gastroc-Soleus
- Straight-Leg Raise with brace in full extension until quad strength returns (no extension lag)

#### A. Extension (straightening knee)



Lie on your stomach with your knee and lower leg hanging over the edge of the bed to stretch your knee straight. Hold 5-10 minutes, 4-5 times per day.

and



Lie on the bed with your ankle on a pillow. Let your knee relax down to stretch your knee straight. Avoid tightening your thigh muscle. Hold 5-10 minutes, 4-5 times per day.

#### B. Flexion (bending knee)



→



Lie on your bed with a loop of towel under your foot. Bend your knee **no more than 90 degrees** by sliding your heel toward your buttocks. Sustain the stretch for 3-5 seconds. Do 25 reps 4-5 times per day.



**Flexion:** Knee bending can also be accomplished by sitting in a chair. Slide your foot backwards with the help of your other foot. **Stretch no further than 90 degrees** Hold 10 seconds. Repeat 25 times

### PHASE 2: Weeks 7 - 12

#### Goals:

- Maintain full extension, obtain full flexion
- Increase hip, quadriceps, hamstring and calf strength
- Increase proprioception

#### Brace:

- Begin unlocking in 30° increments (every 3-4 days) after Week 6. Unlocked when weight-bearing by start of Week 8
- Discontinue after Week 8 (once patient has full extension and no lag)



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### **Exercises:**

- Begin stationary bike
- Continue with range of motion/flexibility exercises as appropriate
- Closed chain extension exercises
- Weight-bearing Gastroc-Soleus stretching
- Toe raises, Start proprioception program

### **PHASE 3: Weeks 13 To 18**

#### **Exercises:**

- Begin straight-ahead, treadmill running after Week 12
- Continue flexibility and ROM exercises as appropriate for patient
- Progressive hip, quad, hamstring and calf strengthening
  - Mini-Wall Squats (0° - 60°)
  - Lateral Lunges and Step-Ups
  - Hip abduction/adduction
  - Short-arc leg press
- Cardiovascular/endurance training via stairmaster, elliptical, bike
- Advance proprioceptive activities and agility drills

### **PHASE 4: Month 5 Through Month 6 – Return to Sport**

#### **Exercises:**

- Progress flexibility/strength program based on individual needs/deficits
- Initiate plyometric program as appropriate for patient's athletic goals
- **Agility** progression including:
  - Side steps + Crossovers, Figure 8 and Shuttle running
  - One and two leg jumping
  - Cutting/Acceleration/Deceleration/Springs, Agility ladder drills
- Continue progression of running distance based on patient needs
- Sport-specific drills as appropriate for patient
- Gradual return to activity as tolerated