



# Indiana University Health

IU Health Physicians Orthopedics & Sports Medicine

## **TIBIAL EMINENCE FRACTURE (NON-OP)**

### **NON-OP PHYSICAL THERAPY PROTOCOL**

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**Patient Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Evaluate and Treat                       Provide patient with home program

Frequency: 2-3 x/week x 4 weeks

### **OVERVIEW:**

- Focus on the protection of fixation in Phase I (0-6 weeks postop).
- Brace: 8 weeks total



- Weeks 0-4: Non-Weight Bearing (Full Extension)
  - Weeks 5-6: Toe-Touch Weightbearing / PWB (Full Extension, d/c crutches after 6 weeks) ... Unlock brace in 30 degree increments beginning Week 5 in weekly increments but locked during ambulation through Week 6
  - Weeks 7-8: WBAT (Brace unlocked and then off after week 8)
- Sleep with brace ON & LOCKED in extension for 6 weeks.
  - Crutches: 6 weeks total (0-4 NWB, 5-6 TTWB/PWB, 7-8 WBAT)

## **Phase I: Weeks 0-6**

### **Goals:**

- Protect fracture fixation with the use of brace and specific exercises.
- Minimize effects of immobilization, inflammation & edema (ice x2 weeks)

### **Brace:**

- Weeks 0-4: Non-Weight Bearing (Full Extension)
- Weeks 5-6: Toe-Touch Weightbearing / PWB (Full Extension, d/c crutches after 6 weeks) ... Unlock brace in 30 degree increments beginning Week 5 in weekly increments but locked during ambulation through Week 6
- Weeks 7-8: WBAT (Brace unlocked and then off after week 8)

### **Weight-Bearing:**

- Weeks 0-4: Non-Weight Bearing (Full Extension)
- Weeks 5-6: Toe-Touch Weightbearing / PWB (Full Extension, d/c crutches after 6 weeks) ... Unlock brace in 30 degree increments beginning Week 5 in weekly increments but locked during ambulation through Week 6
- Weeks 7-8: WBAT (Brace unlocked and then off after week 8)

### **Range of Motion:**

- AAROM → AROM as tolerated after 4 weeks of immobilization within the confines of the brace incremental increase allotment
- Maintain full extension and work on progressive knee flexion.



- 0-90 degrees by Week 6
- 0-125 degrees by Week 8

#### **Exercises:**

- Patellar mobilization/scar mobilization
- Quad sets, Hamstring curls, Heel slides
- Non-weight bearing stretching of Gastro-Soleus
- Straight-leg raise with brace in full extension until quad strength returns (no extension lag)

### **Phase II: Weeks 7-12**

#### **Goals:**

- Advance to Full WB, wean off crutches, obtain motion
- Maintain full extension, obtain full flexion
- Increase hip, quadriceps, hamstring and calf strength
- Increase proprioception

#### **Brace:**

- Begin unlocking in 30 degree increments (every 1 week) after Week 4 as above. Locked during ambulation through Week 6. Unlocked when weight bearing by the start of Week 8.
- Discontinue after Week 8 (once patient has full extension and no lag).

#### **Exercises:**

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



### **Phase III: Weeks 13-18**

#### **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 degrees)
  - Lateral Lunges & Step-Ups
  - Hip Abduction/Adduction
  - Short-Arc Leg Press
  
- Cardiovascular/endurance training via stair master, elliptical and bike
  
- Advance proprioceptive activities and agility drills

### **Phase IV: Months 5-6 - 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 & Two Leg Jumping
  - Cutting/Accelerative/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



**By signing this referral, I certify that I have examined this patient and physical therapy is medically necessary. This patient \_\_\_ would X would not benefit from social services.**

\_\_\_\_\_ **Date:** \_\_\_\_\_

**Bryan M. Saltzman, MD**