



# Indiana University Health

*IU Health Physicians Orthopedics & Sports Medicine*

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

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

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[www.bryansaltzmanmd.com](http://www.bryansaltzmanmd.com)

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

X  Evaluate and Treat                       X  Provide patient with home program

Frequency:  2-3  x/week x  4  weeks

## **PHASE I – MAXIMUM PROTECTION (0 TO 1 WEEKS):**

### **0 TO 1 WEEK:**



- Ice and modalities to reduce pain and inflammation
- Use crutches **non-weight bearing for 6 weeks**
- **Brace for 6 weeks in full extension**
- Elevate the knee above the heart for the first 3 to 5 days
- Initiate patella mobility drills
- Begin full passive/active knee range of motion exercises
- Quadriceps setting focusing on VMO restoration
- Multi-plane open kinetic chain straight leg raising
- Gait training with crutches (NWB)

## **PHASE II – PROGRESSIVE STRETCHING AND EARLY STRENGTHENING (WEEKS 1 TO 6):**

### **WEEKS 1 TO 6:**

- Maintain program as outlined in week 0 to 1
- **Brace for 6 weeks in full extension**
- Continue with modalities to control inflammation
- Initiate global lower extremity stretching program
- Begin stationary bike and pool exercise program (when incisions healed)
- Implement reintegration exercises emphasizing core stability
- Closed kinetic chain multi-plane hip strengthening on uninvolved side
- Manual lower extremity PNF patterns
- Proprioception drill emphasizing neuromuscular control
- Multi-plane ankle strengthening

## **PHASE III – STRENGTHENING AND PROPRIOCEPTIVE PHASE (WEEKS 6 TO 10):**

### **WEEKS 6 TO 8:**

- Modalities as needed
- Continue with Phase II exercises as indicated
- Begin partial weight bearing at 25% of body weight and increase by 25% approximately every 3 days. May progress to one crutch at 7 1/2 weeks as tolerated, gradually wean off of crutches by week 8 – 9

### **WEEKS 9 TO 10:**

- Normalize gait pattern



- Advance stationary bike program; begin treadmill walking and elliptical trainer; Avoid running and impact activity
- Initiate closed kinetic chain exercises progressing bilateral to unilateral
- Initiate proprioception training

## **PHASE IV – ADVANCED STRENGTHENING AND INITIATION OF PLYOMETRIC DRILLS (WEEKS 10 TO 20):**

### **WEEKS 10 TO 16:**

- Initiate gym strengthening-beginning bilateral progressing to unilateral
  - Leg press, heel raises, hamstring curls, squats, lunges, knee extensions (30° to 0° progressing to full range as PF arthrokinematics normalize)

### **WEEKS 16 TO 20:**

- Continue with advanced strengthening
- Begin functional cord program
- Begin pool running program progressing to land as tolerated

## **PHASE V – RETURN TO SPORT FUNCTIONAL PROGRAM (WEEKS 20 TO 24):**

- Follow-up examination with physician
- Implement sport specific multi-directional drills and bilateral plyometric activity progressing to unilateral as tolerated
- Continue with aggressive lower extremity strengthening, cardiovascular training, and flexibility
- Sports test for return to play

**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**

