



## Indiana University Health

*IU Health Physicians Orthopedics & Sports Medicine*

### **ANTERIOR CRUCIATE LIGAMENT (ACL) AVULSION REPAIR**

#### **PHYSICAL THERAPY PROTOCOL**

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

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

**Procedure:** Right/Left ACL Avulsion Repair

**Associated Procedure** (circled if applicable): Meniscectomy/Meniscal Repair

\_\_\_ Evaluate and Treat – no open chain or isokinetic exercises

\_\_\_ Provide patient with home exercise program

**Frequency:** \_\_\_\_\_ x/week    x    \_\_\_\_\_ 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 weight-bearing with transition to Weight-bearing as tolerated and d/c of crutches at end of 6 weeks (Full Extension)
  - Weeks 7-8 (Unlock brace in 30 degree increments, unlocked and off after week 8)
- Sleep with brace ON & LOCKED in extension for 3 weeks.
- Crutches: 4 weeks total (0-4 NWB, 5-6 TTWB with transition to WBAT at 6-week mark)

## **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)
- Advance to Full WB, wean off crutches, obtain motion

### **Brace:**

- Weeks 0-4: Brace locked in full extension for ambulation & sleeping.
- Weeks 5-6: TTWB in extension. OK to d/c brace when sleeping.
- Weeks 7-8: WBAT. Begin unlocking in 30 degree increments every 3-4 days. Unlock by the start of Week 8 and d/c after Week 8.

### **Weight-Bearing:**

- Weeks 0-4: NWB



- Weeks 5-6: TTWB. At the 6-week mark, wean from crutches and transition from protected weightbearing to weight-bearing as tolerated as patient demonstrates normal gait mechanics and improved quad control.

### **Range of Motion:**

- PT begins POD#3 to 7
- CPM Machine beginning POD#1
- AAROM → AROM as tolerated
- Maintain full extension and work on progressive knee flexion.
  - 0-90 degrees by Week 3
  - 0-125 degrees by Week 6

### **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:**

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

### **Brace:**

- Begin unlocking in 30 degree increments (every 3-4 days) after 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 16
- 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
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- 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 \_\_\_ would not benefit from social services.**

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

**Bryan M. Saltzman, MD**