



**Austin Cole, MD**

## **Meniscus Repair- Radial/Root Post-Operative Protocol**

### **Phase I – Maximum Protection**

#### **Weeks 0 to 6:**

- Brace – 0-90 degrees
  - Recommend locking brace in extension for sleep
- Non-weight bearing with two crutches for 6 weeks
- Limit knee flexion to 90-degrees for 3 weeks; allow 90-120 degrees between 3 to 6 weeks

#### **Goals**

- Reduce inflammation and pain
- 0 degrees of knee extension

#### **Exercise progression**

- Emphasize patellofemoral mobilizations
- Passive/active knee range of motion with 90° flexion limit
- Quadriceps setting emphasize VMO function
- Multi-plane straight leg raising
- Open chain hip strengthening
- Gait training

### **Phase II – Progressive Stretching and Early Strengthening**

#### **Weeks 6 to 8:**

- Brace – open to 0-90 degrees for ambulation
- Continue using two crutches, with gradual progression of weight bearing
  - Increase WB to FWB over next 2 weeks

#### **Exercise progression**

- Gradual progression to full knee flexion
- Continue to emphasize patella mobility
- Begin bilateral closed kinetic chain strengthening limited range initially
- Step-up progression
- Begin stationary bike with light resistance initially
- Gait training - normalize gait pattern

### **Phase III – Advanced Strengthening and Proprioception**

#### **Weeks 8 to 12:**

#### **Goals**

- Full knee range of motion

#### **Exercise progression**

- Avoid rotational movements for 14 weeks
- Advance stationary biking program (increase intensity)
- Introduce treadmill walking and elliptical trainer
- Begin unilateral closed kinetic chain program
- Gym strengthening progression (leg press above 90-degrees, hamstrings curls etc.)

## **Phase IV – Advanced Strengthening and Plyometric Drills**

### **Weeks 12 to 16:**

#### Exercise progression

- Begin light bilateral plyometrics

## **Phase V – Return to Sport**

### **Weeks 16-20:**

#### Exercise Progression

- Plyometric drills from bilateral to unilateral at 16 weeks
- Linear running progression at 16 weeks
- Progress to lateral and rotational stresses at 18 weeks
- Multi-directional drills at 18-20 weeks

#### Criteria to be released for return to sport

- Follow-up examination with the physician
- Pass return to sport functional test at >90% (involved vs uninvolved limb)
  - Perform test at 20 weeks or after, depending on patient readiness
  - See testing protocol
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting and decelerating