

**Quadriceps Tendon Repair:**

*The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after a quadriceps tendon repair. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.*

**INDIVIDUAL CONSIDERATIONS:**

---

---

**Phase I - Maximum Protection (Weeks 0-6)****Weeks 0-2**

- Brace locked in full extension for 8 weeks
- Partial weight bearing for 2 weeks
- Range of motion – none
- Ice and modalities to reduce pain and inflammation
- Aggressive patella mobility drills

**Weeks 2-4**

- Weight bearing as tolerated; progressing off of crutches
- Passive range of motion - 0° to 30°
- Continue with inflammation control
- Continue with aggressive patella mobility
- Submaximal quadriceps setting

**Weeks 4-6**

- Full weight bearing
- Continue with ice and aggressive patella mobility
- Range of motion - 0° to 60° (by week 6)

- Increase intensity with quadriceps setting

## **Phase II - Progressive Range of Motion and Early Strengthening (Weeks 6-12)**

### **Weeks 6-8**

- Full weight bearing
- Open brace to 45°- 60° of flexion week 6, 90° at week 7
- Continue with swelling control and patella mobility
- Gradually progress to full range of motion
- Begin multi-plane straight leg raising and closed kinetic chain strengthening program focusing on quality VMO function
- Initiate open kinetic chain progressing to closed kinetic chain multi-plane hip strengthening
- Normalize gait pattern
- Begin stationary bike
- Initiate pool program

### **Weeks 8-10**

- Wean out of brace
- Continue with patella mobility drills
- Normalize gait pattern
- Restore full ROM
- Progress open and closed kinetic chain program from bilateral to unilateral
- Increase intensity on stationary bike
- Begin treadmill walking program forward and backward
- Begin elliptical trainer

### **Weeks 10-12**

- Full ROM
- Terminal quadriceps stretching
- Advance unilateral open and closed kinetic chain strengthening

## **Phase III - Progressive Strengthening (Weeks 12-16)**

- Advance open and closed kinetic chain strengthening
- Increase intensity on bike, treadmill, and elliptical trainer
- Increase difficulty and intensity on proprioception drills
- Begin gym strengthening: leg press, hamstring curls, ab/adduction; avoid lunges and knee extensions
- Begin multi-directional functional cord program

## **Phase IV - Advanced Strengthening and Functional Drills (Weeks 16-20)**

- May begin leg extensions; 30° to 0° progressing to full ROM as patellofemoral arthrokinematics normalize

- Begin pool running program advancing to land as tolerated

**Phase V - Plyometric Drills and Return to Sports (Weeks 20-24)**

- Advance gym strengthening
- Progress running/sprinting program
- Begin multi-directional field/court drills
- Begin bilateral progressing to unilateral plyometric drills
- Follow-up appointment with physician
- Sports test for return to competition