



## **Patellar/Quadriceps Tendon Repair Protocol**

### **Phase I – Maximum Protection (Weeks 0-6):**

#### **0-2 weeks:**

- Brace locked in full extension for 6 weeks
- Partial weight bearing for 2 weeks
- Ice/Mods to reduce pain and inflammation
- Patella mobility drills
- Range of motion – 0-30deg of knee flexion
- Begin submaximal quadriceps setting

#### **Weeks 2-4:**

- Weight bearing as tolerated; progressing off crutches
- Continue with inflammation control
- Continue with patella mobility
- Range of motion – 0-60deg
- Continue with submaximal quadriceps setting

#### **Weeks 4-6:**

- Full weight bearing
- Continue with ice and aggressive patella mobility
- Range of motion – 0-90deg (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 (if applicable) to 45-60deg of flexion week 6, 90deg at week 7
- Continue with swelling control and patella mobility
- Gradually progress to full ROM
- Begin multi-plane straight leg raising and closed kinetic chain strengthening program focusing on quality VMO function
- Initiative open kinetic chain progressing to closed chain multi-plane hip strengthening
- Normalize gait pattern
- Begin stationary bike
- Initiate pool program

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**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)**

**Weeks 12-16**

- Advance open and closed chain kinetic 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)**

**Weeks 16-20:**

- May begin leg extensions; 30deg to 0deg progressing to full ROM as patellofemoral arthrokinematics normalize
- Begin pool running program advancing to land as tolerated

**Phase V – Plyometrics Drills and Return to Sport Phase (weeks 20-24)**

**Weeks 20-24**

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

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