



THE ORTHOPEDIC PARTNERS  
AN RCM CLINIC

PARK CITY • HEBER CITY • SALT LAKE CITY

## QUADRICEPS TENDON REPAIR POST-OPERATIVE PROTOCOL

### PHASE I – MAXIMUM PROTECTION

#### **WEEKS 0-2:**

- Brace-locked in full extension for 6 weeks for ambulation
- Non-weight bearing x 2 weeks
- Ice, elevation and other modalities to reduce pain and inflammation
  - GOAL=Aggressive patella mobility drills
    - Range of motion – gentle ROM gaining 20-25 degree per week from 0 degree
  - Exercises:
    - Begin submaximal quadriceps setting

#### **WEEKS 2-4:**

- Weight bearing as tolerated, progressing off of crutches
- Weight bearing with locked brace
- Continue with inflammation control
  - GOAL=Continue with aggressive patella mobility
    - Range of motion – gentle ROM gaining 20-25 degree per week from 0 degree
  - Exercises:
    - Continue with submaximal quadriceps setting

#### **WEEKS 4-6:**

- Full weight bearing
- Continue with ice and aggressive patella mobility
  - GOAL= aggressive patella mobility
    - Range of motion – 0° to 90° (by week 6)
  - Exercises:
    - Increase intensity with quadriceps setting

### PHASE II – PROGRESSIVE RANGE OF MOTION AND EARLY STRENGTHENING

#### **WEEKS 6-8:**

- Brace: Open brace to 30°- 60° of flexion with adequate quad starting week 6, 90° at week 7-9
- Full weight bearing
- Continue with swelling control and patella mobility
  - Exercises:
    - Gradually progress to full range of motion
    - Begin multi-plane straight leg raising and closed kinetic chain strengthening program focusing on quality VMO function.



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- 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:**

- Brace: Wean out of brace per adequate quad
  - Exercises:
    - 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:**

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

**PHASE III – PROGRESSIVE STRENGTHENING**

**WEEKS 12-16:**

- Exercises:
  - 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:**

- Exercises:
  - 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 SPORT PHASE**



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**WEEKS 20-24:**

- Exercises:
  - 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
- Other Considerations:
  - Follow-up appointment with physician at 6 months