

## QUADRICEPS/PATELLA TENDON REPAIR

### Physical Therapy Protocol

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#### PHASE I: WEEK 1

- Emphasize extension – the goal is to be at full extension by day 14
- Brace all times except when doing exercises or showering
- WBAT brace locked in extension with crutches
- Gentle patellar mobilization/scar mobilization
- TheraBand ankle exercises/ankle pumps
- Cryotherapy
- CPM (occasionally used)

#### PHASE II: WEEKS 2-6

- Start formal physical therapy
- Emphasize extension – the goal is to be at full extension by day 14
- Brace all times except when doing exercises or showering
- WBAT brace locked in extension may ween from crutches
- Edema control
- Patellar mobilization/scar mobilization
- ROM
  - Extension- PROM/ AAROM
  - Flexion- AROM/ AAROM
    - Start at 0-30°: Increase 10-15° per week
    - Goal: 90° flexion by 6 weeks
- Strength
  - Isometric quad, hamstrings, abductor, adductors
  - Heel raises
  - Active abduction/adduction with brace

**Precautions:** no active knee extension, no stairs, no weightbearing on flexed knee

#### PHASE III: WEEKS 6-12

- Continue with previous program
- Ween from brace- begin by unlocking brace
- Normalize gait
- Continue Isometric strengthening
- ROM

- Progressive AROM and gradual passive knee flexion
- Goal: full restoration of knee motion
- Strength
  - Quad sets, straight leg raises (start to add weight)
  - Lower Extremity
  - Wall slides
  - Partial squats
  - Progressive closed chain strengthening
  - Limit open/closed chain knee extension arc to 30°
- Stationary bike
- Pool exercises

**Precautions:** no high impacts, no weightbearing on flexed knee

PHASE IV: WEEKS 12-16

- Continue with previous treatment
- Advance open- and closed-chain strengthening
- Increase intensity on bike, treadmill, elliptical
- Increase proprioception drills
- Begin gym strengthening program
- Leg press, hamstring curls, abduction/adduction

**Precautions:** no lunges or deep arc knee extension, no jumping

PHASE V: WEEKS 16-20

- Continue with previous program
- Pool running
- Walk to jog progression
- Progressive strengthening

PHASE VI: WEEKS 20-24

- Continue with previous program
- Return to sport
- Progressive strengthening
- Running program