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## **PATELLAR TENDON REPAIR**

### **POST-SURGICAL REHABILITATION PROTOCOL**

#### **POST-OP DAYS 1 – 14**

- Dressing:
  - POD 1: Debulk dressing, TED Hose in place
  - POD 2: Change dressing, keep wound covered, continue TED Hose
  - POD 7-10: Sutures out, D/C TED Hose when effusion resolved
- Brace x 8 weeks – Locked in extension for ambulation
- Crutches – Partial weight bearing (PWB)
- Patellar mobilization (teach patient)
- Calf pumping
- AAROM 0-45 degrees (passive extension, active flexion, heel slides)
- Passive extension with heel on bolster or prone hangs
- Electrical stimulation – sub-maximal quad sets for muscle re-education
- Quad sets, Co-contractions quads / Hamstrings
- Standing Straight leg raise (SLR) x 4 (in brace)
- Gentle Hamstring stretch
- Ice Pack with knee in full extension after exercise

#### **GOALS**

- Full passive extension
- Good quad control
- Pain/effusion controlled

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

- Brace x 8 weeks – Locked in extension for ambulation
- Crutches – Weight bearing as tolerated (WBAT), D/C when gait is normal
- Continue appropriate previous exercises
- AAROM 0-70 degrees (passive extension, active flexion)
- SLR x 4 on mat (in brace)
- Hamstring curls 0-45 degrees on weight machine with light resistance
- Double leg heel raises
- Proprioceptive training (in brace)
  - Single leg standing in parallel bars
  - Double leg BAPS for weight shift
- Stretches – Hamstring, ITB

#### **GOALS**

- ROM 0-70 degrees
- No extensor lag

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

- Brace x 8 weeks – Locked at 0-30 degrees for ambulation
- Continue appropriate previous exercises
- AAROM 0-90 degrees (passive extension, active flexion)

- Standing SLR x 4 (in brace) with Theraband bilaterally
- Hamstring curls 0-90 degrees on weight machine with light resistance
- Forward, lateral and retro step downs in parallel bars (in brace 0-45 degrees)
- No knee flexion past 45 degrees (small step)
- Single leg heel raises (in or out of brace)
- Elliptical trainer (in brace)

### **GOALS**

- Normal gait
- ROM 0-90 degrees

### **WEEKS 6 - 8**

- Brace x 8 weeks – Gradually open to available range
- Continue appropriate previous exercises
- AAROM, AROM through full range
- Active knee extension without weight (no brace)
- SLR x 4 on mat with light weight below the knee (no brace)
- Leg press 0-60 degrees – Light resistance (no brace)
- Mini squats, Wall squats 0-60 degrees (no brace)
- Proprioceptive training (in brace) – Single leg BAPS, ball toss and body blade
- Stationary bike (no brace) – Progressive resistance and time
- Treadmill – Forwards and backwards walking (in brace)
- Pool therapy (flutter kicks from hip with knee in extension)

### **GOAL**

- ROM 0-110 degrees

### **WEEKS 8 - 12**

- D/C Brace
- Continue appropriate previous exercises and following ex without brace
- PROM, AAROM, AROM to regain full motion
- Short Arc Quads
- Hamstring curls on machine through full range – Light to moderate resistance
- Leg Press 0-90 degrees – Light to moderate resistance
- Hip weight machine x 4 bilaterally
- Fitter
- Slide board
- Treadmill – Walking progression program

### **GOALS**

- Full ROM
- Walk 2 miles at 15 min/mile pace

### **MONTHS 3 - 4**

- Continue appropriate previous exercises
- Knee extension weight machine with light to moderate resistance
- Functional activities – Figure 8s, gentle loops, large zigzags
- Treadmill – Running progression program
- Pool therapy – Swimming laps
- Quad and Hip Flexor stretches

### **GOALS**

- Equal thigh girth
- Equal quad flexibility in prone (heels to buttocks)
- Run 2 miles at easy pace

## **MONTHS 4 - 6**

- Continue appropriate previous exercises
- Agility drills / Plyometrics
- Sit-up progression
- Stairmaster
- Running progression to track
- Transition to home / gym program

### **GOAL**

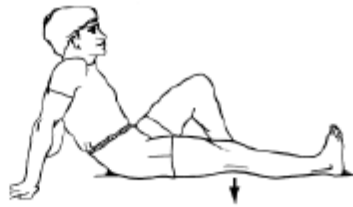
- Return to all activities

***\*NO CONTACT SPORTS UNTIL 6 MONTHS POST-OP\****

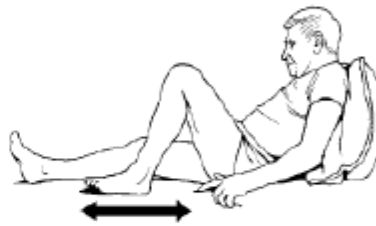
## **KNEE POST-OP PHASE I**

Perform exercises below frequently: 30 reps, 3 – 5x a day

### **Quad Isometrics**



### **Heel Slides**



### **Active Assisted Motion**



### **Ice Position 15 minutes 2-3 x per day**



#### **ADAPTED FROM:**

Mark Galland, MD Physical Therapy Section

Kenneth Kirby, PT, DPT William Beaumont Army Medical Center