



Quadriceps Tendon Repair Rehab Protocol

Post-Op Days 0-14

Goals:

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

Brace:

- Locked in extension for ambulation

Weightbearing:

- With crutches – partial weightbearing (PWB)

Exercise Program:

- Patellar mobilization (teach patient)
- Calf pumps
- Passive extension with heel on bolster on 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

Weeks 2-4

Goals:

- ROM 0-70 degrees
- No extensor lag

Brace:

- Locked in extension for ambulation

Weightbearing:

- Crutches – weightbearing as tolerated (WBAT), d/c when gait is normal

Exercises:

- Continue with previous exercises
- AAROM 0-70 degrees (passive extension, active flexion)
- SLR x4 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

Weeks 4-6

Goals:

- Normal gait
- ROM 0-90 degrees

Brace:

- Locked at 0-30 degrees for ambulation

Exercise Program:

- Continue appropriate previous exercises
- AAROM 0-90 degrees (passive extension, active flexion)
- Standing SLR x4 (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)

Weeks 6-8

Goals:

- ROM 0-110 degrees

Brace:

- Gradually open to available range

Exercise Program:

- Continue appropriate previous exercises
- AAROM, AROM through full range
- Active knee extension without weight (no brace)
- SLR x4 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 and knee in extension)

Weeks 8-12

Goals:

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

Brace:

- Discharge

Exercise Program:

- Continue previous exercises and following exercises 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 x4 bilaterally
- Fitter
- Slide board
- Treadmill – walking progression program

Months 3-4

Goals:

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

Exercise Program:

- 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

Months 4-6

Goals:

- Return to all activities

Exercise Program:

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