

Quadriceps Tendon / Patellar Tendon Repair

PHYSICAL THERAPY PROTOCOL

PHASE I: Protective Phase

Goals:

Minimize pain and inflammatory response
Achieve staged ROM goals
Protect repair
Quad activation

Brace: T-Scope brace

- Full weight bearing locked in extension
- Progressive ROM when non-weight bearing

POST-OP WEEKS 0-6

- Modalities as Indicated
- Gentle patellar mobilization - medial and lateral only
- Scar management
- Ankle pumps
- Quad sets/hamstring co-contractions 10x10, 2-3 x daily
- SLR in brace (at 0 degrees) 10x10, 2-3 x daily
- Side-lying hip abduction
- Heel raises
- Full passive extension with heel prop or prone hang
- Heel slides within ROM limitations as stated below:
 - 0-2 weeks: 0-30 degrees
 - 2-4 weeks: 0-60 degrees
 - 4-6 weeks: 0-90 degrees
 - 6 weeks plus: brace unlocked to full range of motion

POST-OP WEEKS 6-10

- Continue as above
- Prevent patellar tendinitis, treat and manage accordingly
- Discontinue use of brace when quad strength adequate, 8-12 weeks
- May begin stationary bike at 8 weeks
- Short arc lift (knee bent to 20-25 degrees)
- Wall slides
- Leg press with 2 legs
- Hamstring curls
- Single leg balance -floor and advance to airex
- Cable column exercise if good quad control is present:
 - Retro walking, lateral stepping, shuffling, no crossover stepping
- Treadmill forward and retro walking
- Chair squats /wall squats, keep the tibia perpendicular to the floor

PHASE II: Progressive Strengthening

Goals:

Achieve full ROM

Eliminate pain and swelling

Improve strength, endurance and power

POST-OP WEEKS 10-12 Weeks

- Continue as above
- Progress all exercises for the affected leg
- Hamstring/quad/ calf stretches
- Single leg heel raise
- All cardio equipment as tolerated (bike, elliptical, stair stepper) - no jogging
- Unilateral step-ups and step Downs- 2" and progress height as tolerated, emphasis on control descent
- Lunges, lunge walks, leg squats -keeping the tibia perpendicular to the floor
- Slide board -start with short distances and progress as tolerated

POST-OP WEEKS 12-16 weeks

- Continue as above
- Full prone flexion
- Initiate jogging on a treadmill
- Lateral movements -stepping, shuffling, hopping, carioca, etc.
- Full strength-at least 85-95% of unaffected leg use isokinetic test if needed.

PHASE III: Return to Activity/Advanced Conditioning

Goals:

Improve strength, endurance, and power

Return to full ADL's and recreational activities

POST-OP MONTHS 4-6

- Continue strengthening
- Continue with dynamic exercises
- Progress jump roping to line jumps, then box jumps, and then distance jumps
- Begin sport specific drills
- Progress speed and intensity of above activities

RETURN TO SPORT/ACTIVITY CRITERIA

- Satisfactory clinical exam
 - ROM
 - Quad mass
- <10% isokinetic strength deficit (Leg Press)
- Single leg hop test
- Completion of sport replication activity
 - Functional progression