

Rehabilitation Following Quadriceps Tendon Repair

I. 0-3 weeks

Goals: Restore full passive knee extension
Diminish pain and joint swelling
*Controlled forces on repair site

- Brace: Locked IROM brace locked at 0° extension with compression wrap
Sleep in brace till 6 weeks
- Weight bearing: Determined by surgeon (TDWB vs. WBAT) with crutches
- Range of motion: Locked in extension
- Exercises: Ankle pumps
Quad sets

II. 3 to 7 weeks

Goals: Control forces on healing tendon
Gradually increase knee flexion
Restore full passive knee extension
Restore patellar mobility
Retard muscular atrophy

Week 3:

- Brace: Continue use of locked brace (6 weeks)
Sleep in brace (6 weeks)
- Weight bearing: Progress to full weight bearing with crutches
- Range of motion: PROM knee flexion only 0-30
progress 10-15 degree a week
Full passive knee extension
Patellar mobilization
- Exercises: Electrical muscle stimulation to quads
Quad sets
Ankle pumps
Hip abd/adductions
Gravity eliminated SLR flexion
- Continue ice, elevation and compression

Weeks 6-7:

- Discontinue use of crutch at 6 weeks postop
- Discontinue brace when sleeping at 6 weeks
- Unlock brace for ambulation at 6 weeks if stable and good quad function
- Range of motion with brace unlocked:
Week 6: 0-60°
Week 7: 0-90°

III. 8 to 11 weeks

Goals: Control forces during ambulation and ADL's
Progress knee flexion ROM
Improve lower extremity muscular strength
Restore limb confidence and function

- Brace: Use postop brace unlocked for ambulation until 8 weeks (or until determined safe)
- Range of motion: Week 8: 0-95/100°
 Week 9: 0-100/105°
 Week 10: 0-115°
- Exercises: *Gradually increase muscular strength
 Straight leg raises (flexion)
 Hip abd/adduction
 Knee extension 90-0
 ½ squats
 Leg press
 Wall squats
 Front lunges
 Lateral lunges
 Calf raises
 Hamstring curls (restricted ROM)
 Proprioception drills
 Bicycle
 Pool program

IV. Weeks 12-16 weeks

- Range of motion: Week 12: 0-125°
- Exercises: *Continue all exercises listed above
 Initiate lateral step-ups
 Initiate front step-downs
 Initiate backward lunges
 Walking program
 *No sports!

V. Light Activity Phase (Months 4-6)

Goals: Enhancement of strength, endurance
 Initiate functional activities
 Improve tensile strength properties of tendon

- Exercises: Continue strengthening exercises
 Continue emphasis on eccentrics and functional exercises
 *May initiate plyometrics (month 5)
 *May initiate agility drills (lateral shuffle) month 5
 *If appropriate!
 *May initiate light running months 5-6

VI. Return to Sport Activity Phase (Months 7-9)

Criteria to Return to Activities:

1. Satisfactory clinical exam
2. Satisfactory strength
3. Proprioception test 80% > of opposite leg
4. Appropriate rehab progression
- 5.

Goals: Gradual return to full-unrestricted sports
 Continue strength program
 Continue functional/agility drills

Exercises: Continue strengthening exercises
 Continue agility program
 Continue sport specific training