

Quadriceps Tendon Repair

| Postop | Goals | Precautions | Exercises |
|--|--|--|--|
| Weeks 0-1 PT 1-2x/week HEP daily | Full passive knee extension Diminish pain and effusion Restore patellar mobility Initiate early controlled motion | 20lb Foot Flat WBing Brace locked at 0° except for approved exercises/PT ROM: 0-30° | Isometric quad sets Ankle Calf pumps Patellar mobilizations Hip abd/adductions Stretches: hamstring and calf/gastrocnemius |
| Weeks 1-2 PT 1-2x/week HEP daily | Full passive knee extension Diminish pain and effusion Restore patellar mobility Initiate early controlled motion | 50% WBing w/ brace locked and two crutches ROM: 0-30° Brace still locked for ambulation and sleep but may unlock when seated/resting at home | All above exercises Initiate gravity eliminated SLR flexion |
| Weeks 2-6 PT 2-3x/week HEP daily | Full passive extension Control forces on tendon Gradually increase knee flexion – 90° by 6 weeks Slow/prevent quad atrophy Edema and pain control Restore patellar mobility | WBAT Brace locked at 0° for ambulation (weeks 2-4) May unlock brace 0-20° (week 4-5) with use of one crutch May unlock brace (week 5-6) and progress off of crutch Weeks 2-3: 0-50° Weeks 3-4: 0-70° Weeks 4-5: 0-90° Weeks 5-6: 0-100° | 2-3w: add muscle stim 4-5w: Continue all exercises listed above Initiate mini-squats (0-45o) Initiate weight shifts Initiate proprioception drills 5-6w: Initiate pool exercise Active knee extension 90-30° Multi-angle isometrics knee ext Initiate anti-gravity SLR flexion |
| Weeks 7-12 PT 2-3x/week HEP daily | Control forces during ambulation and ADL's Progress knee flexion ROM Improve lower extremity muscular strength Restore limb confidence and function | WBAT unlocked DC brace when adequate quad reciprocally Avoid painful activities No running Week 7: 0-110° Week 8: 0-120° Week 9: 0-130° | *Gradually increase strength Straight leg raises (flexion) Knee extension 90-0 ½ squats Leg press Wall squats Front lunges Lateral lunges Calf raises Hamstring curls (restricted ROM) Proprioception drills Bicycle |

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| Weeks 12-16 PT 2-3x/week HEP daily | Return to normal ADLs Improve endurance Descend 8" step with control 85% limb symmetry Improve strength/flexibility | WBAT Full ROM No running | Continue and advance above Progress squat program Leg press (emphasize eccentrics) Elliptical Retrograde treadmill Initiate lateral step-ups Initiate front step-downs Initiate backward lunges Walking program *No sports! |
| Weeks 16-24 PT 1x/week HEP daily | Enhancement of strength, endurance Initiate functional activities Improve tensile strength properties of tendon | WBAT / Full ROM | Continue strengthening exercises Continue emphasis on eccentrics and functional exercises *May initiate plyometrics (month 5) *May initiate agility drills (lateral shuffle) month 5 *May initiate light running months 5-6 |
| | No apprehension with sport specific movements Maximize strength and flexibility to meet sporting demands | WBAT Avoid painful activities No running until: Strength >70% contralateral No agility training until: Strength >90% contralateral No return to sport until: Passes RTP evaluation MD clearance | Maintenance quadriceps and lower extremity strength home program |