

# Quadriceps or Patella Tendon Repair

Weeks One and Two	Weeks Two To Four
Initial Evaluation	Evaluate
Range of motion Joint hemarthrosis Ability to contract quad/VMO Inspect for infection/signs of DVT Assess RTW and sport expectations Gait (typically present locked in Bledsoe. WB status is dependent on tear and surgical technique. Consult physician if not stated on order)	Range of Motion Joint Hemarthrosis Ability to contract quad/vmo Signs of infection or DVT Patella mobility
Patient Education	Patient Education
Support physician prescribed meds Reinforce use of crutches and brace Discuss surgical precautions Discuss frequency and duration of treatment (2-3x/wk is expected for the first 6-8 weeks, followed by intermittent appointments over another 6-8 weeks)	Crutch use is case dependent. Refer to MD order or contact physician Reinforce precautions Ensure continued use of brace
Therapeutic Exercise	Therapeutic Exercise
Initiate HEP (ankle pumps, quad sets, and hamstring/gastroc stretching) No flexion activity will typically be allowed until 4 weeks and will be case dependent. Refer to MD order or contact physician	Continue with ankle pumps, quad sets, and hamstring/gastroc stretching Should include early weight shifting and proprioception Initiate multi- plane leg raises in brace Initiate heel slides, and AAKE at 4 weeks
Manual Techniques	Manual Techniques
No patella mobilization PROM will typically not be allowed until 4 weeks and is case dependent. Refer to MD order or contact physician	Initiate gentle patella mobilization Initiate gentle mobilization of incision when appropriate Initiate PROM flexion at 4 weeks
Modalities	Modalities
May initiate use of NMES Electric stimulation, biofeedback, and ice may be used as needed	Continue use of NMES as needed Other modalities may be used as needed
Goals	Goals
Control pain Reduce joint hemarthrosis Restore quad contraction Independence with post-op precautions	Control Pain Restore normal gait within brace Initiate restoration of Flexion ROM at 4 weeks

<b>Weeks Four To Six</b>	<b>Weeks Six To Eight</b>
<b>Evaluate</b>	<b>Evaluate</b>
Gait and brace needs Quad contraction ROM Balance	Any ROM restrictions HEP compliance Balance
<b>Patient Education</b>	<b>Patient Education</b>
Use single axillary crutch as needed to normalize gait Wean from crutches as able	D/C brace with good quad contraction and physician approval typically by 8 weeks
<b>Therapeutic Exercise</b>	<b>Therapeutic Exercise</b>
Initiate stationary bike Progress open chain isotonic Progress to multi angle isometrics Initiate balance activities	Bilateral dynamic balance activity Initiate gentle closed chain exercises for quad contraction and proprioception in partial ROM (wall slide, leg press) 6 weeks
<b>Manual Techniques</b>	<b>Manual Techniques</b>
May complete patella mobilization as needed PROM and joint mobilization as indicated	Any as indicated
<b>Modalities</b>	<b>Modalities</b>
Any as Indicated	Any as Indicated
<b>Goals</b>	<b>Goals</b>
Quad strength 4/5 by week 6 Normal gait within brace with crutches as needed 0-90 degrees ROM by week 6	Normal gait on flat level surface without assistive device No pain with ADL's 0-120 degrees ROM by week 8

Weeks Eight To Twelve	Weeks Twelve To Discharge
<b>Evaluate</b>	<b>Evaluate</b>
HEP compliance Patella mobility/crepitus Balance/single leg stance	Address any deficits that may limit return to work or sport goals Complete functional movement screen
<b>Therapeutic Exercise</b>	<b>Therapeutic Exercise</b>
Progress isotonic strength training to include movement in multiple planes at 8 weeks Progress closed chain exercises for quad contraction and proprioception (assisted squatting, and step-up) 10 weeks	Progress balance activity to single leg dynamic activity and unstable surfaces at 12 weeks Cardiovascular training at 12 weeks (bike, swim and elliptical with physician approval) May begin CFA at 12 weeks (with physician approval) Complete agility and running activity with appropriate movement screen, manual strength test, and physician approval at 4-6 months
<b>Goals</b>	<b>Goals</b>
Normal ROM Normal gait all surfaces Lower extremity strength at least 4+/5 Good stability at the knee joint May complete exercise independently with intermittent follow up appointments when above criteria is met (Typically 10 to 12 weeks)	5/5 strength with manual testing Minimal deficits with functional movement screen testing Discharge with full return to work or sport activity