

🗖 Frisbie Memorial Hospital 🗖 Marsh Brook Rehabilitation Service 🗖 Wentworth-Douglass Hospital 🗖 Durham: Rehab and Sports Therapy Center

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 Modalities 	 Initiate gentle patella mobilization Initiate gentle mobilization of incision when appropriate Initiate PROM flexion at 4 weeks Modalities
May initiate use of NMES	Continue use of NMES as needed
 Electric stimulation, biofeedback, and ice may be used 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



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Weeks Four To Six	Weeks Six To Eight
Evaluate	Evaluate
 Gait and brace needs Quad contraction ROM Balance 	 Any ROM restrictions HEP compliance Balance
Patient Education	Patient Education
 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
Therapeutic Exercise	Therapeutic Exercise
 Initiate stationary bike Progress open chain isotonics 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
Manual Techniques	Manual Techniques
 May complete patella mobilization as needed PROM and joint mobilization as indicated 	Any as indicated
Modalities	Modalities
Any as Indicated	Any as Indicated
Goals	Goals
 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



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Weeks Eight To Twelve	Weeks Twelve To Discharge
Evaluate	Evaluate
 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
Therapeutic Exercise	Therapeutic Exercise
 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
Goals	Goals
 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