



Brian Bjerke, MD

Medial Patellofemoral Ligament Reconstruction

Post-Operative Protocol

Phase I – Maximum Protection (Weeks 0 to 6):

- **Weeks 0 to 2:**
 - Brace – six weeks (locked in full extension for 1st two weeks)
 - Use crutches weight 50% bearing x 2-4 weeks
 - Goals
 - Reduce inflammation
 - Normalize superior/inferior patella mobility with manual mobilizations
 - full extension
 - No Knee Range of Motion
 - Exercise progression
 - Quadriceps setting using NMES as needed
 - Gait training

- **Weeks 2 to 4:**
 - Goals
 - Reduce inflammation
 - Full knee extension/hyperextension
 - 30 of knee flexion, progressing 30 degrees of motion/wk with goal of 90 degrees at week 6
 - Knee brace locked in full extension while ambulating
 - Progress off crutches

- **Weeks 4 to 6:**
 - Exercise Progression
 - Quadriceps Setting
 - Straight Leg Raises
 - Multi-plane open chain hip strengthening
 - Bridge with knee extension (ball)
 - Lower extremity stretching (hamstring, calf, ITB)
 - Calf Raises

Phase II – Progressive ROM and Early Strengthening (Weeks 6 to 10):

- **Weeks 6 to 8:**
 - Goals
 - Progress out of brace over 2 weeks
 - Full knee extension/hyperextension
 - Knee flexion to 120 (progress as tolerated)
 - Normalize gait mechanics
 - Normalize patellofemoral joint and scar mobility
 - Exercise progression
 - Multi-plane open and closed kinetic chain hip strengthening
 - Step-up progression
 - Stationary biking and treadmill/outdoor walking
 - Deep water pool program when incisions healed; focus on ROM
 - Proprioception drills

- **Weeks 8 to 10:**
 - Goals
 - Reduce inflammation
 - Full ROM
 - Normal gait
 - Exercise progression
 - Begin closed chain squat progression (mini-squat, etc)
 - Increase intensity of stationary bike program, may add elevation to treadmill walking and elliptical
 - Advance intensity of deep water pool program; focus on endurance training

Phase III – Advanced Strengthening and Endurance Training (Weeks 10 to 16):

- **Weeks 10 to 12:**
 - Goals
 - Full knee flexion and extension with terminal stretch
 - Progressive strengthening
 - Increase muscular endurance
 - Exercise progression
 - Squat progression: progress as tolerated with focus on swelling and pain
 - Controlled movement series
 - Focus on increased lower extremity flexibility

- **Weeks 12 to 16:**
 - Exercise progression
 - Conservative Gym Program (avoid leg extension and lunge due to stress on patella-femoral joint)
 - Outdoor biking – week 12
 - Lateral lunge progression – week 16
 - Shallow water pool running – week 16
 - Swimming free style – week 12
 - Backward elevated treadmill walking - week 12-16
 - Basic ladder series – 4+months

Phase IV – Advance Strengthening and Running progression (Weeks 16 to 24):

- **Exercise progression – (Weeks 16-20)**
 - Progress resistance with squat program
 - Linear running progression
 - Advanced ladder series
 - Basic plyometric box progression

- **Return to Sport and Functional Drills Phase (Weeks 20 to 24)**
 - Interval golf program
 - Advance ladder, hurdle, and plyo box progressions
 - Sport specific field/court drills with brace on
 - Non-contact drills
 - Follow-up examination with the physician
 - Sports test for return to competition at 6 months

Please have the physical therapist call Dr. Bjerke at 952-456-7000 with any questions in regards to rehab protocol.