



Brian Bjerke, MD

Medial Patellofemoral Ligament Reconstruction

Post-Operative Protocol

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

Weeks 0-2:

- **Brace** (knee immobilizer provided in surgery) to be worn until quad strength has returned (usually ~1 week)
 - Weight bearing as tolerated in full extension (w/ knee immobilizer)
 - Crutches while walking in knee immobilizer
 - **Need to remove brace immediately post-operatively to work on knee ROM**
 - Knee ROM to progress to full as swelling and pain allows
- Goals:
 - Reduce inflammation
 - Normalize patella mobility with manual mobilizations
 - Gain full extension
 - Full knee ROM- no restrictions
- Exercise Progression:
 - Quadriceps sets using NMES as needed
 - Gait training

Phase II – Progressive Stretching and Early Strengthening (Weeks 4 to 6):

- Goals:
 - Reduce inflammation
 - Full knee extension/hyperextension
 - Knee flexion- gradually progressing to full
 - Normalize patellofemoral joint and scar mobility
- Exercise Progression:
 - Multi-plane open and closed kinetic chain hip strengthening
 - Stationary biking
 - Proprioception drills

Phase III – Advanced Strengthening and Endurance Training (Weeks 6 to 12):

Weeks 6-10:

- Goals:
 - Full knee flexion and extension
 - Progressive strengthening
 - Increase muscular endurance
- Exercise Progression:
 - Leg press, squats (above 90°)
 - Hamstring curls
 - Increase intensity of stationary bike program, treadmill walking and elliptical
 - Advanced intensity of deep water pool program; focus on endurance training

Weeks 10-12:

- Exercise Progression:
 - Outdoor biking
 - Lunge progression (retro, walk and split) as indicated
 - Lateral lunge progression
 - Swimming free style
 - Forward/backward elevated treadmill walking

Phase IV – Advance Strengthening and Running progression (Weeks 12 to 28):

Weeks 12-24 (3-5.5 months):

- Exercise Progression:
 - Progress resistance with squat and lunge strengthening program, may add leg extensions at 30° - 0° (exclude patients with patellar or trochlear groove chondral pathology)
 - Shallow water pool running progression: week 12
 - Basic ladder series: week 12
 - Linear running progression: week 16
 - Basic plyometric box progression: week 16
 - Fit functional brace (if used): week 18

Weeks 24-28 (5.5-6.5 months): Return to Sport and Functional Drills Phase

- Exercise Progression:
 - Interval golf program
 - Advance ladder, hurdle and plyometric box progressions
 - Sport specific field/court drills with brace on
 - Non-contact drills
- Sports test and follow-up with physician:
 - Follow-up examination with the physician
 - Sports test for return to competition at 7-9 months

Return to full sports participation without restrictions is anticipated at approximately 7-9 months depending on sport.

*Please feel free to contact Dr. Brian Bjerke's office with any questions or concerns. Dr. Bjerke's care coordinator Andria Larson is available by phone at 952-456-7095.