



Brian Bjerke, MD

ACL & MCL Reconstruction

Post-Operative Protocol

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

Weeks 0-6:

- Brace (knee immobilizer provided in surgery):
 - Brace will be worn while ambulating until 1st post-op appointment
 - At first post-op appointment (1-3 days post-op), patient will be fitted with a hinged knee brace
- Use crutches for 4-6 weeks
 - 0-2 weeks: TTWB (toe touch weight bearing), brace locked in extension while ambulating
 - 2-4 weeks: 50% WB, brace locked in extension while ambulating
 - 4-6 weeks: 75% WB, brace locked in extension while ambulating
- Goals:
 - Reduce inflammation
 - Normalize patella mobility with manual mobilizations
 - Gain full extension
 - Limit knee to 90° flexion x4 weeks
- Exercise Progression:
 - Quadriceps sets using NMES as needed
 - Multi-plane straight leg raising
 - Open and closed chain multi-plane hip strengthening after full weight bearing
 - Lower extremity stretching
 - Core strengthening
 - Proprioception drills
 - Gait training
 - Deep water pool program with 90° limit once incisions are healed

Phase II – Progressive Stretching and Early Strengthening (Weeks 2 to 6):

Weeks 2-4:

- Goals:
 - Progress off crutches
 - Full knee extension/hyperextension
 - Knee flexion to 120°, progress as tolerated
 - Normalize gait mechanics
 - Normalize patellofemoral joint and scar mobility
- Exercise Progression:
 - Bilateral squat 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 4-6:

- Goals:
 - Reduce inflammation
 - Full ROM
 - Normal gait
- Exercise Progression:
 - Leg press, hamstrings curls
 - 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 6 to 12):

Weeks 6-12:

- Goals:
 - Full knee flexion and extension with terminal stretch
 - Progressive strengthening
 - Increase muscular endurance
- Exercise Progression:
 - Weighted squat progression
 - Lunge progression (retro, walk and split) as indicated
 - Controlled movement series

Overall weeks 8-10:

- Exercise Progression:
 - Outdoor biking: week 8
 - Lateral lunge progression: week 8-10
 - Shallow water pool running: week 8-10
 - Swimming free style: week 8-10

- Backward elevated treadmill walking: week 8-10
- Basic ladder series: week 10

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)
 - Linear running progression
 - Advanced ladder series
 - Basic plyometric box progression
 - Fit functional brace

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 6 to 8 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.