

ACL Reconstruction with Bone-Patellar Tendon-Bone (BTB) Autograft and Meniscal Root Repair Rehabilitation Protocol

| | Weight-bearing | Brace | Range of Motion | Exercises |
|---------------------------------------|---|--|---|---|
| Phase 1 0-4 weeks | Heel touch with crutches ^a | 0-4 week: Locked in full extension for ambulation and sleeping. Off for exercises and hygiene only | Gentle Passive 0-90° at one-week postop | Calf pumps, patellar mobilization, quadriceps tightening sets and SLR in brace . No weight-bearing motion. |
| Phase 2 2-12 weeks | 5-6 weeks: 50% weight bearing with brace unlocked 0-90° 6-8 weeks: Wean off crutches and progress to full with normalized gait pattern | 4-6 weeks: Unlocked 0-90° Off at night Discontinue brace at 6 weeks once normal gait achieved 7-8 weeks: Unlocked 0-90 for ambulation, can remove for sleeping, Discontinue at 8 weeks if quadriceps control is adequate (no extension lag) | 4-6 weeks: 0-90 7-8 weeks: progress beyond 90 to gain full and pain-free ROM | Add side-lying hip and core, advance quad set and stretching ^a In brace: Addition of heel raises, total gym (closed chain), gait normalization, eccentric quads, eccentric hamstrings. Advance core work with hip, gluteal and core strengthening No weight-bearing with flexion >90° Begin toe raises, closed chain quads, balance exercises, hamstring curls, stationary bike, step-ups, front and side planks, hip/glute/core Begin Stationary Bike at 8-10 weeks |
| Phase 3 12-16 weeks | Full with normalized gait pattern | None | Full | Advance closed chain strengthening Progress proprioception activities Elliptical at 12 weeks (low flexion angles) Running straight at 14-16 weeks when 8" step down is satisfactory |
| Phase 4 16 weeks – 6 months | Full | None | Full | 16 weeks: Begin jumping 20 weeks: Advance running to sprinting, backward running, cutting, pivoting, changing direction, initiate plyometric program and sport-specific drills 22 weeks: Advance as tolerated FSA completed at 22 weeks ^b |
| Phase 5 6-12 months | Full | None | Full | Gradual return to sports participation after completion of functional sports assessment (FSA) Maintenance program based on FSA |

SLR – Straight-leg raise

^aModified with concomitantly performed meniscus repair/transplantation or articular cartilage procedure

^bCompletion of FSA (Functional Sports Assessment) is not mandatory, but is recommended at approximately 22 wks post-op for competitive athletes returning to play after rehabilitation

Last Modified: July 12, 2024