

## ACL Reconstruction with Quadriceps Tendon Autograft and Meniscal Repair Inside-Out Rehabilitation Protocol

	Weight-bearing	Brace	Range of Motion	Exercises
<b>Phase 1</b> 0-2 weeks	Heel touch with crutches <sup>a</sup>	<b>0-2 week:</b> Locked in full extension for ambulation and sleeping  Off for exercises and hygiene only	Gentle Passive 0-90° at one week postop visit, then progress to full	Calf pumps, patellar mobilization, quadriceps tightening sets and SLR in <b>brace</b> . No weight-bearing motion.
<b>Phase 2</b> 2-12 weeks	<b>2-4 weeks:</b> 50% weight bearing with brace unlocked 0-90°  <b>4-8 weeks:</b> Progress to full with brace unlocked 0-90° and discontinue brace at 6 weeks.	<b>2-6 weeks:</b> Unlocked 0-90° for ambulation, remove for sleeping Discontinue at 6 weeks if quadriceps control is adequate (no extension lag)	Gain full and pain-free	Add side-lying hip and core, advance quad set and stretching <sup>a</sup>  <b>In brace:</b> Addition of heel raises, total gym (closed chain), gait normalization, eccentric quads, eccentric hamstrings.  Advance core work with hip, gluteal and core strengthening <b>No weight-bearing with flexion &gt;90°</b>  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 weeks
<b>Phase 3</b> 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
<b>Phase 4</b> 16 weeks – 6 months	Full	None	Full	<b>16 weeks:</b> Begin jumping  <b>20 weeks:</b> Advance running to sprinting, backward running, cutting, pivoting, changing direction, initiate plyometric program and sport-specific drills  <b>22 weeks:</b> Advance as tolerated  FSA completed at 22 weeks <sup>b</sup>
<b>Phase 5</b> 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

<sup>a</sup>Modified with concomitantly performed meniscus repair/transplantation or articular cartilage procedure

<sup>b</sup>Completion 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