

# ACL Reconstruction with Bone-Patellar Tendon-Bone (BTB) Autograft Rehabilitation Protocol

	Weight-bearing	Brace	Range of Motion	Exercises
<b>Phase 1</b> 0-4 weeks	Full in brace <sup>a</sup>	<b>0-2 week:</b> Locked in full extension for ambulation and sleeping  <b>2-4 weeks:</b> Unlocked for ambulation, remove for sleeping <sup>b</sup>	As tolerated 0-90° by 2 weeks	Heel slides, quadriceps/hamstring sets, patellar mobilization, calf (gastrocnemius/soleus) stretch  SLR w/ brace in full extension until quadriceps strength prevents extension lag  Side-lying hip/core
<b>Phase 2</b> 4-12 weeks	Full, progressing to normal gait pattern	Discontinue at 4 weeks if quadriceps control is adequate (no extension lag)	Gain full and pain-free	Begin toe raises, closed chain quads, balance exercises, hamstring curls, stationary bike, step-ups, front and side planks, hip/glute/core
<b>Phase 3</b> 12-16 weeks	Full with a normalized gait pattern	None	Full	Advance closed chain strengthening Progress proprioception activities  Begin stair climber, elliptical at 8 weeks and running straight at 12 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

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