

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

	Weight-bearing	Brace	Range of Motion	Exercises
Phase 1 0-4 weeks	Full in brace ^a	0-2 week: Locked in full extension for ambulation and sleeping 2-4 weeks: Unlocked for ambulation, remove for sleeping ^b	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
Phase 2 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
Phase 3 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
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