ACL Reconstruction with Quadriceps Tendon Autograft Rehabilitation Protocol

	Weight-bearing	Brace	Range of Motion	Exercises
Phase 1 0-4 weeks	As tolerated with crutches ^a	0-1 week : Locked in full extension for ambulation and sleeping	As tolerated	Heel slides, quadriceps/hamstring sets, patellar mobilization, calf (gastroc/soleus) stretch
		1-4 weeks : Unlocked for ambulation, remove for sleeping ^b		SLR w/ brace in full extension until quadriceps strength prevents extension lag
Phase 2 4-12 weeks	Full, progressing to	Discontinue at day 28 if patient has no extension	Main full extension and progressive	Progress Phase I Begin toe raises, closed chain
	normal gait pattern	lag	flexion	quads, balance exercises, hamstring curls, stationary bike, step-ups, front and side planks, hip/glute/core, pool
Phase 3 12-16 weeks	Full, without use of crutches and with a normalized	None	Gain full and pain- free	Advance closed chain strengthening, progress proprioception activities
	gait pattern			Begin stairmaster, elliptical and running straight ahead
Phase 4	Full	None	Full and pain- free	16 wks: Begin jumping
16 weeks – 6 months				20 wks: Advance running to sprinting, backward running, cutting/pivoting/changing direction, initiate plyometric program and sport-specific drills
				22 wks : Advance as tolerated FSA completed at 22 wks ^c
Phase 5 6-12 months	Full	None	Full and pain- free	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

^bBrace may be removed for sleeping after first post-operative visit (day 7-10)

^cCompletion of FSA (Functional Sports Assessment) is not mandatory, but is recommended at approximately 22 wks postop for competitive athletes returning to play after rehabilitation.