Michael Weathers, MD PCL Reconstruction Protocol

PCL Reconstruction Protocol

Weight- Bearing and Immobilization	Phase I: 0-7 days (PT 1x per week) • Progress from TTWB to PWB (25-50%) with brace locked in full extension • Brace locked in full extension at all times	Phase II: 1-4 weeks (PT 1x per week) • Progress from PWB (25-50%) to WBAT with crutches with brace locked in full extension • At rest, place pillow/bump behind proximal tibia to prevent posterior tibial sag	Phase III: 5-8 weeks (PT 2-3x per week) • WBAT with crutches with brace 0-90° and then unlock as tolerated • Discontinue brace and crutches at 6-8 weeks when no extension lag with SLR, excellent quadriceps control, and quadriceps strength adequate for stable and normalized gait pattern	
Aerobic	None	• None	None	
Range of Motion (ROM) and Strengthening	 Isometric quad sets Patellar mobilization Straight-leg raises Ankle pumps Hip abduction and adduction 	 Continue Phase I exercises PROM 0-60° only while supine and in brace to prevent posterior tibia sag Hamstrings and gastrocnemius stretching Hip extension exercises Calf press with light bands and progression to bilateral standing calf raises in full extension and then single calf raises in full extension 	 Continue Phase II exercises Isometric wall sits/slides 0-45° and then progress to active against body weight Standing hip flexion, extension, abduction, and adduction with resistance (resistance must be proximal to knee) 	
Other	Modalities as needed to reduce pain/swelling and for muscle re-education Home Exercise Program (HEP) per discretion of Physical Therapist			
Goals	Pain controlProtection of tissue healing	Pain controlProtection of tissue healingMinimize joint stiffnessAchieve full knee extension	 Progress to WBAT with normalized gait pattern Progress knee ROM 	

Michael Weathers, MD PCL Reconstruction Protocol

	Phase IV: 9-12 weeks (2-3x per week)	Phase V: 3-6 months (2x per month)	Phase VI: 6+ months		
Weight- Bearing and Immobilization	WBAT No brace				
Aerobic	 Stationary bike (elevated seat height initially, and normalize height as ROM allows, low resistance) Begin treadmill walking, elliptical machine, and stairclimber 	Begin walk-jog-run progression at 5 months	Continue walk-jog-run progression		
Range of Motion (ROM) and Strengthening	 Continue Phase III exercises Closed chain terminal knee extension (lights bands initially and gradual progression to weights) Leg press 0-90° Begin proprioception and balance 	 Continue Phase IV exercises Advance closed chain exercise program Advance balance and proprioception Begin agility exercises at 5 months 	 Continue HEP to maintain strength, endurance, and flexibility Begin sport-specific training after completing general program Pass Leg Press Test Pass Single Hop Test Quadriceps and hamstring strength >90% of uninvolved limb Begin plyometric training with jumping and landing mechanics if indicated 		
Other	Modalities as needed to reduce swelling and for muscle re-education Home Exercise Program (HEP) per discretion of Physical Therapist				
Goals	Achieve full knee ROM Progress strengthening	 Achieve full knee ROM Progress strengthening Begin working towards passing Leg Press Test and Single Hop Test 	Begin sport-specific training Return to sports criteria: Pass Leg Press Test Pass Single Hop Test Quadriceps strength >90% of uninvolved limb Hamstring strength >90% of uninvolved limb Jog, run, shuttle-run, and agility exercises without pain, swelling, or difficulty		