

PCL + Posterolateral Corner (PLC) Reconstruction Rehabilitation Protocol

Dr. Kyle Flikkema

The goals of this protocol are to protect the reconstructions while preventing knee stiffness, so early Passive ROM exercises are very important. In addition, preventing excessive anterior and/or posterior tibia translation is also very important.

Phase / Goals	Immobilization	ROM	Therapeutic Exercises
Phase 1 (0-2 weeks) Goals: <ul style="list-style-type: none"> • SLR x 20 without lag • Normal gait mechanics • PROM: 0 → 90° • Hold wall slides x 2 weeks • No varus stress, hyperextension or tibial rotation 	<ul style="list-style-type: none"> • Toe touch weight bearing x 6 weeks • Brace locked in full extension during ambulation and sleep • PCL brace at all times including sleep 	<ul style="list-style-type: none"> • Begin PROM 0 – 90 deg • Avoid hyperextension and tibial rotation • Patellar mobilization all directions Modalities: <ul style="list-style-type: none"> • NMES if unable to perform SLR without lag • Hi-volt estim for edema control/ IFC/ice estim for pain control • Cryocuff/Game Ready Compression/ Ice 	<ul style="list-style-type: none"> • Bike for ROM (rocking) • Flexion: heel slides, seated knee flex • Extension: heel prop, prone hang • Long sitting HS stretch • Quad sets, glut sets • SLR x4 with assist until no lag • Standing TKEs • Ankle pumps • Calf raises on leg press • Limit knee varus (i.e. no side lying hip abd or side stepping) • No hamstring isometrics for 6 weeks
Phase 2 (3-6 weeks) Goals: <ul style="list-style-type: none"> • Minimal joint effusion • Avoid isolated active hamstring exercises • No varus stress, hyperextension, posterior tibial sag or tibial rotation 	<ul style="list-style-type: none"> • Toe touch weight bearing • Brace unlocked, 0-90 • PCL brace at all times including sleep 	Modalities: <ul style="list-style-type: none"> • Cont. above • Scar STM when incision healed • Patellar mobs all directions • Gentle prone quad stretch/knee flex • Manual assist extension/passive stretch • HS STM for extension assist 	<ul style="list-style-type: none"> • Continue above • Heel slides/wall slides/seated assist flexion • Quad sets/SLR in Brace at 0° (assist patient with this exercise until solid quad contraction developed, prevent posterior sag) • BFR – initiate post op day 15 • Glut sets, clams/mini-hydrants/glut pushes • No hamstring isometrics for 6 weeks • ***No open chain HS x 4 months

<p>Phase 3 (7-12 weeks) Goals:</p> <ul style="list-style-type: none"> • Maintain full AROM • No open chain HS x 4 months • Limit knee varus • No tibial external rotation 	<ul style="list-style-type: none"> • Progress to FWB • PCL Brace full time 	<ul style="list-style-type: none"> • Full A/PROM <p>Manual:</p> <ul style="list-style-type: none"> • Joint mobs PRN for full flex and ext ROM • Patellar mobs/ Scar STM with extractor <p>Modalities:</p> <ul style="list-style-type: none"> • Ice/stim PRN 	<ul style="list-style-type: none"> • Stationary bike with no resistance • LE stretches • Wall sits/squats <60° flex, progress to ball toss with wall sit and SL squat • Total gym SL leg press, calf raise • Step ups/lateral step over's- progress to faster pace • No open chain HS x 4 months
<p>Phase 4 (13-16 weeks) Goals:</p> <ul style="list-style-type: none"> • Jogging without pain/swelling • SL jump w/o difficulty • Functional Knee Test results >75% (taken at week 16) 	<ul style="list-style-type: none"> • PCL Brace full time 	<ul style="list-style-type: none"> • Full A/PROM • Avoid tibial external rotation 	<ul style="list-style-type: none"> • Continue everything in phase 3 • Begin elliptical and stair master • May begin swimming • SL dead lift and RDLs
<p>Phase 5 (17-20 weeks) Goals:</p> <ul style="list-style-type: none"> • Sport-specific training without pain or swelling • Functional Knee Test results >85% (taken at week 20) 	<ul style="list-style-type: none"> • PCL Brace full time 	<ul style="list-style-type: none"> • Continue Full A/PROM • Modalities PRN 	<ul style="list-style-type: none"> • Increase walk-jog progression • Figure 8 running patterns • Gym-program activities • Sport-related strengthening • Can begin isolated resisted hamstring exercises • Otherwise progress per standard PCL protocol
<p>Phase 6 (20-28 weeks) Goals:</p> <ul style="list-style-type: none"> • Functional Knee Test Results >90% (taken at week 24) 	<ul style="list-style-type: none"> • PCL Brace full time 	<ul style="list-style-type: none"> • Continue Full A/PROM 	<ul style="list-style-type: none"> • Begin walk-jog progression week 20 if full ROM/no edema/full strength and can perform SL hops x10 pain-free (SUPERVISED) • No contact • No cleats • No competition • Gym-program activities
<p>Phase 7 (>29 weeks)</p>	<ul style="list-style-type: none"> • FWB • DC full-time brace • PCL brace for sports activities until 12 months post op 	<ul style="list-style-type: none"> • Full A/PROM 	<ul style="list-style-type: none"> • Start plyometric/jump training • Isokinetic test for Quad strength difference $\leq 10\%$ and unilateral Hamstring/Quad strength ratio of 65% or better • Continue strength testing monthly until patient passes then perform functional testing • No cutting/pivoting x 9 months • Dr. Ridley to discuss prior to return to sport

RETURN-TO-SPORT CRITERIA:

Full return to all sports and games

- At least 10 months from surgery
- No functional complaints, full range of motion & no effusion
- Confidence when running, cutting, jumping at full speed
- >90% isometric quadriceps strength
- >90% contralateral values on hop tests
- >90% Quad Index LSI with Biodex or HHD
- >90% Quad peak torque/body weight on Biodex (if applicable)
- Excellent ACL-RSI
- Wear PCL brace for sports/recreational activities for first year after surgery