

Posterolateral Corner (PLC) w/wo PCL Repair/Reconstruction Protocol

Michael Chiu, MD
Illinois Bone and Joint Institute
Phone: (847)870-6100
Fax: (847)870-8159

Guidelines: This protocol is for fibular collateral ligament, popliteus tendon, popliteofibular ligament (posterolateral corner) repair/reconstruction, and can be combined with cruciate ligament reconstruction protocols adhering to all restrictions in each protocol. Cartilage repairs or other ligament repairs/reconstructions may have other weight bearing and ROM restrictions along with extended time frames for use of brace and crutches; Anti-inflammatories are not prescribed immediately post-op. Time frames are listed below, however treatment progression through each phase should take into account patient status and physician advisement. Avoid knee varus forces, hyperextension, tibial external rotation or external rotation of foot/ankle for 4 months postoperatively.

Weeks 0-2:

Goals: Control inflammation, edema and pain, Protect soft tissue and graft(s), fixation/reconstruction, Full extension, Quad control.

Restrictions: Brace locked in full extension at all times other than PT, no hip/leg abduction at any time (no prone hangs if PCL reconstruction). Avoid knee varus forces, hyperextension, tibial external rotation or external rotation of foot/ankle.

Weight bearing: TTWB (20%) with immobilizer or hinged knee brace locked in extension.

Motion: Maintain full extension, start 0-40 degrees flexion passive knee flexion and increase by 10 degrees per week as tolerated, prone hangs

Strength: Quad sets, ankle pumps, SLR with electric stim (no weight), co-contractions

Week 2-4:

Goals: Control inflammation, edema and pain, Protect soft tissue and graft(s), fixation/reconstruction, Normal patellar mobility, increasing motion

Restrictions: Brace locked in full extension other than PT, no hip/leg abduction at any time (no prone hangs if PCL reconstruction). Avoid knee varus forces, hyperextension, tibial external rotation or external rotation of foot/ankle.

Weight bearing: TTWB (20%) with immobilizer/brace locked in extension.

Motion: Maintain full extension, increase passive/AAROM to 90 degrees as tolerated, prone hangs

Strength: Quadriceps sets hourly up to 30 reps, and SLR up to 30 reps (no weight) 4-5 times per day, ankle pumps

Week 4-8:

Goals: Control inflammation/effusion, pain, Protect soft tissue and fixation/reconstruction, Motion to 120 degrees by week 6

Restrictions: As above for 4 months, PWB until 6 weeks

Weight bearing: Discontinue knee brace by 8 weeks postop if able to perform SLR without extensor lag, Increase WBAT after week 6 postoperatively with brace open to AROM, discontinue crutches when normal gait

Motion: Maintain full extension and may increase flexion 0 to 120 degrees active/assisted knee flexion by 6 weeks, free motion by 8 weeks.

Strength: Continue aforementioned, stationary exercise bike 105 degrees if knee motion appropriate and no effusion ensues, wall sits 0-45 degrees, mini-squats with support 0-45 degrees, gentle hip abduction with no resistance or varus stress at/below knee
pool therapy if incisions well healed

Weeks 8-12:

Goals: Normal gait, Increase ROM, Treadmill walk 1-2 miles at 15 min/mile pace

Restrictions: All exercises performed with less than 70 degrees of flexion, if swimming no whipkicks and flip turns, no cutting/pivoting exercises yet

Motion: Full as tolerated, stretching and notify Dr. Chiu if lacking 5 degrees or more of terminal extension or there is less than 110 degrees of flexion

Strength: Continue aforementioned with increased resistance, treadmill walking, step-downs, carpet drags

Months 3-5:

Goals: Improve confidence in the knee, Protect Repair/Fixation, Progress with strength, power, and proprioception, Treadmill walk 1-2 miles at moderate pace, running once able to perform 20 repetitions of operative extremity single leg squat to greater than 60 degrees of flexion with good control

Restrictions: no cutting/pivoting

Motion: Full as tolerated, incorporate additional aerobic exercises

Strength: Progress resistance through bicycling and exercises, walk/jog intervals, core, glutes, double limb squats, advance closed kinetic chain exercise program, at 4 months addition of unstable surface, agility drills, and plyometrics

Months 6-9+:

Goals: Improve confidence in knee, Quadriceps strength, Increase endurance, power, proprioception, coordination, Progress running and agility training, swimming, Advance with Restrictions: Physician to give clearance for cutting and pivoting (usually after 6 months) and sports simulation and coordination between physician and physical therapy is critical for recovery

Motion: Unrestricted

Strength: Progress closed chain exercises, pool jogging and running, large zig-zags/cutting drills into agility training, slide boards, advance heights with plyometric conditioning, leaping, hopping, sports specific drills (start at 25% on speed and advance as tolerated)

ULTIMATE GOAL: achieve maximum strength after 7 months and Criteria for Return to Sports (likely no sooner than 9 months): Full range of motion, no effusion, quad and hamstring comparison to contralateral strength/limb symmetry index is greater than 90%, No lateral side symptoms