

Anterior Cruciate Ligament and Medial Collateral Ligament Reconstruction Protocol

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

Guidelines: Assume 8 weeks for ACL graft revascularization; 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.

Weeks 0-4:

Goals: Control inflammation, edema and pain, Protect soft tissue and graft 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)

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

Motion: Maintain full extension, start 0-40 degrees flexion and may increase flexion 0-90 degrees active/assisted knee flexion, prone hangs

Strength: Quad sets, ankle pumps, SLR with electric stim, co-contractions. BFR encouraged

Week 5-8:

Goals: Control inflammation and pain, No effusion, Protect soft tissue and fixation/reconstruction, SLR x 30, increase motion

Restrictions: Brace on at all times including day and while sleeping, unlock for ROM, discontinue brace at week 8

Weight bearing: WBAT at 6 weeks and discontinue crutches, continue hinged knee brace unlocked for AROM

Motion: Maintain full extension and may increase flexion 0 to 110 degrees active/assisted knee flexion by 6 weeks, free motion by 8 weeks. Gentle hip abduction with no resistance at knee

Strength: Continue aforementioned, wall sits 0-45 degrees, mini-squats with support 0-45 degrees, pool therapy, hip/core, treadmill walking by 8 weeks

Weeks 8-12:

Goals: Increase ROM, Full WB, Establish normal gait, Treadmill walk 1-2 miles at 15 min/mile pace

Motion: Full as tolerated, stretching

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

Months 3-4:

Goals: Improve confidence in the knee, Protect Repair/Fixation, Progress with strength, power, and proprioception

Restrictions: Avoid valgus stress through knee, no cutting/pivoting

Motion: Full as tolerated, incorporate additional aerobic exercises

Strength: Progress, walk/jog intervals, core, glutes, continue above with increase resistance, step-downs, treadmill, begin agility drills and plyometrics at 4 months

Months 5-6:

Goals: Treadmill walk 1-2 miles at moderate pace, Progress strength, power, and proprioception

Progress running and agility training, swimming

Progress strengthening program, Advance with closed chain exercises, Begin pool jogging and progress to running on land, Begin to incorporate large zig-zags/cutting drills into agility training, Slide boards, Advance heights with plyometric conditioning, Sports specific drills (start a 25% on speed and advance as tolerated)

Months 6-9+:

Goals: Continue to progress strength, power and proprioception

Restrictions: Physician to give clearance for 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 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 medial side symptoms