

Posterior Cruciate Ligament (PCL) Reconstruction and Posterolateral Corner (PLC) Reconstruction

Phase 1 – Maximum Protection

Weeks 0 to 4

- No weight bearing, use two crutches at all times
- Brace locked in extension for all mobility, may unlock when seated (see ROM limits below)
- Avoid posterior and externally rotated tibia glides or maneuvers
- Avoid isolated hamstring exercises x 4 months

Goals:

- PCL protection, prevent posterior tibial translation
- Reduce inflammation
- Normalize patella mobility with manual mobilizations
- Avoid hyperextension

Exercise Progression:

- Quad activation exercises
- Straight leg raises when no quad lag is present
- Prone passive knee flexion, within limits (see below)
- Hip adduction/abduction exercises
- Upper body exercise, core muscle training as indicated

ROM limitations:

- Weeks 0-2: 0-60 degrees
- Weeks 2-6: 0-90 degrees

Weeks 4 to 6

- Begin partial weight bearing at 4 weeks
- Progress to weight bearing as tolerated by 6 weeks
- Brace locked in extensions for all mobility until 6 weeks

Goals:

- Progress off crutches
- Knee flexion to 120 degrees, progress as tolerated
- Normalized gait mechanics
- Reduce inflammation
- Full knee extensions

Phase 2 – Progressive Stretching and Early Strengthening

Weeks 6 to 12

- Wean from brace as gait normalizes and quad control is sufficient
- Prevent posterior tibial translation

Goals:

- PCL protection, prevent posterior tibial translation
- Restore full ROM (see below), avoid hyperextension
- Normalize gait mechanics
- Normalize patella mobility with manual mobilizations

Exercise Progression:

- Bilateral squat progression, limited to 70 degrees
- Single-leg exercise in static positions (no single-leg knee flexion beyond 30 degrees)
- Leg press bilateral, limited to 70 degrees
- Closed kinetic chain hip strengthening
- Step-up and step-down progression
- Stationary biking (no resistance) when ROM > 115 degrees
- Proprioception drills

ROM limitations:

- Weeks 6-8: 0-120 degrees
- Weeks 8-12: as tolerated, progress to full

Phase 3 – Advanced Strengthening and Proprioception

Weeks 12 to 18

Goals:

- Progressive strengthening and endurance training
- Eliminate movement dysfunction (i.e. no dynamic valgus at the knee)

Exercise Progression:

- Begin isolated hamstring exercise at 16 weeks, progress slowly
- Lunge progression (retro, walk, and split) as indicated
- Single limb stability exercises
- Add resistance and duration to stationary bike
- Weighted squat progression, can progress past 70 degrees at 16 weeks
- Single-leg bridges, knees bent, starting at 16 weeks

Phase 4 – Advanced Strengthening and Running Progression

Weeks 18 to 24

Exercise Progression:

- Progress resistance with squat and lunge strengthening program
- Advanced ladder series
- Basic plyometric box progression

Criteria to progress to Phase 5:

- Pass preliminary function test at > 90% (involved vs uninvolved limb)

Phase 5 – Return to Sport

Weeks 24 to 36

Exercise Progression:

- Linear running progression
- Hurdle and plyo box progressions
- Sport specific field/court drills
- Non-contact drills

Criteria for return to play:

- Follow-up examination with the physician
- Pass return to sport function test at >90% (involved vs uninvolved limb)
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting, and decelerating

Anticipated return to sport:

- 6-9 months for contact and non-contact athletes