Connecticut Orthopaedics

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Posterior Cruciate Ligament (PCL) Reconstruction
And Posterolateral Corner (PLC) Reconstruction
Post-Operative Protocol

Phase I – Maximum Protection

Weeks 0 to 4:

- Non-weight bearing with crutches
- 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 x4 months

Goals

- PCL protection
- 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 abd/add exercises
- Upper body exercise, core muscle training as indicated

ROM limitations

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

Weeks 4 to 6:

- Begin partial weight-bearing at 4 weeks and progress to WBAT by 6 weeks
- Brace locked in extension for all mobility until 6 weeks post-op

Goals

- Progress off crutches
- Knee flexion to 120 degrees, progress as tolerated
- Normalized gait mechanics
- Reduce inflammation
- Full knee extension
- 100° – 120° of knee flexion, progress as tolerated

Phase II – 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
- 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 exercises 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 deg
- Proprioception drills

ROM limitations
- 6-8 weeks: 0-120 degrees
- 8-12 weeks: as tolerated, progress to full

Phase III – 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 biking
- Weighted squat progression, can progress past 70 degrees at 16 weeks
- Single leg bridges, knees bent, starting at 16 weeks

Phase IV – Advance Strengthening and Running Progression
Weeks 19 to 24:

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

Criteria to progress to Phase V
- Pass preliminary functional test at >90% (involved vs uninvolved limb)
    - See testing protocol

Phase V – Return to Sport
Weeks 25 to 36:

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

Criteria to be released for return to sport
- Follow-up examination with the physician
- Pass return-to-sport functional test at >90% (involved vs uninvolved limb)
    - See testing protocol
- Display symmetry and confidence in high-speed cutting, multiplane plyometric drills, sprinting and decelerating