

Posterior Cruciate Ligament (PCL) Reconstruction Physical Therapy Protocol

David P. Trofa, M.D.

Assistant Professor of Orthopaedic Surgery, Columbia University Medical Center

Chief of Sports Medicine, New York-Presbyterian Westchester

Director of Clinical Outcomes, Department of Orthopaedic Surgery

Head Team Physician, Columbia University

www.DavidTrofaMD.com

Patient Name: _____

Date of Surgery: _____

Procedure: Right / Left PCL Reconstruction

Associated Procedure (checked if performed):

- Partial Meniscectomy
- Meniscus Repair

Frequency: 2x per week for _____ weeks

Phase I (0-6 weeks): *Period of protection*

- **Weightbearing:** WBAT with braced locked in extension with crutches.
- **Brace:**
 - 0-4 weeks: Locked in extension during ambulation and sleeping. May be removed for PT, ROM exercised and hygiene.
 - 4-6 weeks: Unlocked from 0-90° during ambulation for gait training. Removed at night.
- **ROM:**
 - 0-4 weeks: PROM to goal of 90° of flexion (no active knee flexion). Prevent posterior sagging during PROM exercises.
 - 4-6 weeks: Progress ROM as tolerated (no active knee flexion). Prevent posterior sagging.
- **Therapeutic exercises:**
 - Patellar mobilization 5-10 minutes daily.
 - Quad sets
 - Straight leg raises with knee brace locked in extension until quadriceps strength prevents lag.
 - No restrictions to ankle/hip strengthening.
- **Precautions:**
 - Hamstring avoidance until 6 weeks post op.

Phase II (6-12 weeks):

- **Weightbearing:** As tolerated, wean off crutches.

- **Brace:** Discontinued when no extension lag.
- **ROM:** Full.
- **Therapeutic exercises as above plus:**
 - As above
 - Begin calf raises
 - Closed chain quadriceps and hamstring exercises
 - Balance exercises
 - Stationary bike
 - Step ups
 - Front/Side planks
 - Advance hip/core

Phase III (>12 weeks):

- **Weightbearing:** Full weightbearing with normal gait.
- **ROM:** Full and painless. May perform aggressive end-range stretching if full ROM not yet achieved.
- **Therapeutic exercises:**
 - Advance closed chain strengthening
 - Continue with stationary biking
 - Initiation of impact may occur if the involved leg has at least 80% of the strength of the uninvolved leg when measured using a single leg squat test.
 - 12 weeks: Stairmaster and elliptical
 - 16 weeks: Jogging
 - 18 weeks: Jumping
 - 20 weeks: Sprinting, backward running, plyometrics, sports specific drills
- **Progression Criteria to Functional Sports Assessment (>6 months):** Dynamic neuromuscular control with multi-plane activities without instability, pain or swelling; ability to land from a sagittal, frontal and transverse plan; leap and jump with good control and balance.