

**Multiligament Knee Reconstruction:**  
**ACL and PCL Reconstruction**  
**Physical Therapy Protocol**

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**Patient Name:** \_\_\_\_\_

**Date of Surgery:** \_\_\_\_\_

**Procedure:** Right / Left ACL and PCL Reconstruction

**Associated Procedure (checked if performed):**

- Partial Meniscectomy
- Meniscus Repair

**Frequency:** 2x per week for \_\_\_\_\_ weeks

**Key Features of protocol:**

- Please prioritize range of motion with daily stretching, CPM use and physical therapy.
- Weight Bearing: NWB x 6 weeks. Increase weight bearing 25% per week afterwards for full weight bearing by 10 weeks.
- Brace use: Wean after 10 weeks. Locked in extension for walking and sleeping.
- Continuous Passive Motion (CPM) Machine: Starts POD 7. Start at 0-40°. Progress 5-10° per day as tolerated. 6 hours per day in 2 hour increments.
- No resisted knee flexion or hyper-extension for 6 months.
- Return to Sport: 9-10 months.

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

- **Weightbearing:** Non-weight-bearing. Touch down weight-bearing permitted for transfers only.
- **Brace:** Locked in extension for ambulation and sleeping. May be removed for PT, ROM exercises and hygiene.
- **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.
  - Passive leg hangs out of brace to 90°
- **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.
  - Avoid hyperextension

**Phase II (6-12 weeks):**

- **Weightbearing:** As tolerated.
- **Brace:** Unlocked for gait training and then discontinued when no extension lag.
- **ROM:** As tolerated.
- **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 (>12wks):**

- **Weightbearing:** Full weightbearing with normal gait.
- **ROM:** Full and painless. May perform aggressive end-range stretching if full ROM not yet achieved.
- **Therapeutic exercises:**
  - \*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.
  - Advance closed chain strengthening
  - Continue with stationary biking
  - 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:** 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.