



## PCL RECONSTRUCTION

### Post-Operative Rehabilitation Protocol

#### 0-2 Weeks:

- **Weight Bearing:** Non-weight bearing (NWB) with crutches for 6 weeks.
- **Brace Use:**
  - Wear immobilizer for 3–7 days until quadriceps control improves.
  - Transition to Dynamic PCL Brace (Rebound Brace) once quadriceps control is adequate.
  - **PCL Brace** to be worn for 6 months post-surgery.
- **Range of Motion (ROM)** (Prone position only to reduce tension on the PCL graft):
  - Passive flexion: 0-90°
  - Active-assisted extension: 70-0°
  - Focus on maintaining full knee extension.
  - **Restrictions:** No active knee flexion or open-chain hamstring isometrics for the first 8 weeks.
- **Therapeutic Exercises and Modalities:**
  - Patella mobilization
  - Towel extensions
  - Prone hangs
  - Supine straight leg raises (SLR) with brace locked at 0°
  - Quadriceps isometrics at 60°
  - Short-crank (90mm) ergometry
  - SLR in all planes with progressive resistance
  - Multiple-angle quadriceps isometrics (60° to 20°)
- **Weight Bearing Progression:**
  - Begin weight-bearing as tolerated (WBAT) progression starting at 6 weeks, advancing from toe-touch weight bearing (TTWB) to partial weight bearing (PWB) (25%, then 50%).
  - Full weight-bearing by 8 weeks post-op.
- **Crutches & Brace:**
  - Discontinue crutches once gait is non-antalgic (6-8 weeks).
  - Start forward step-up program (6-8 weeks).

---

**Weight Bearing Status:**

- NWB for 6 weeks

**Brace Settings:**

- Immobilizer for 3–7 days
- Transition to PCL brace once quadriceps control is achieved
- Wear PCL brace for 6 months

**ROM Restrictions:**

- Passive range of motion (PROM) 0-90° in prone position, starting post-op day 1
- 

**2-6 Weeks:**

- ROM progression as tolerated
  - Stationary bike with low resistance, and leg presses to a max of 70° knee flexion
  - Initiate active-assisted ROM (AAROM) exercises
  - Start Stairmaster (6-8 weeks)
  - Proprioception training (e.g., Prop Board, BAPS)
- 

**6-12 Weeks:**

- Continue stationary bike and standard ergometry if knee ROM > 115°
  - Leg press and mini-squats (60°-0° arc)
  - Begin step-down program (8-10 weeks)
  - Continue AAROM exercises
  - Incorporate lunges and advanced proprioception training (perturbations)
  - Start agility exercises (sport cord)
  - Use Versaclimber
  - Retrograde treadmill running
  - Focus on quadriceps stretching
- 

**12-20 Weeks:**

- Continue with strengthening exercises (leg press, mini-squats) and stationary bike
  - Emphasize AAROM exercises, proprioception, and agility training
  - Start forward running (if able to descend 8" step satisfactorily)
  - Continue lower extremity strengthening, flexibility, and proprioception training
- 

#### **20-26 Weeks:**

- Begin plyometric program (if sufficient strength base)
  - Perform functional hop test (target >85% compared to contralateral leg)
  - Discontinue dynamic brace if kneeling stress X-rays show less than 2mm of difference
- 

#### **>26 Weeks:**

- Continue advancing plyometric, agility, and sport-specific training
- Progress lower extremity strengthening, flexibility, and proprioception exercises

**Note:** Progression through these phases should be based on individual recovery, with all exercises adjusted as necessary under the guidance of your surgeon and physical therapist. Regular follow-ups with the surgical team are crucial to ensure optimal recovery