



## MCL RECONSTRUCTION

### Post-Operative Rehabilitation Protocol

#### 0-6 weeks

- NWB with crutches for 6 weeks
- Brace locked in extension for ambulation and sleeping throughout this period
- Avoid tibial rotation, hyperextension, and valgus stress on the knee
- **ROM:**
  - Wall slides and supine heel slides with a strap
  - Seated knee flexion with contralateral lower extremity assist
- **Neuromuscular Control:**
  - Quad sets, prone terminal knee extensions (TKE), SLR in brace
  - Use NMES if there is insufficient volitional quad activation
  - Quad isometrics at 90°, 60°, 30°, and 0° knee flexion in side-lying (S/L) hip ABD with brace
  - Prone hip extension with brace
  - Ankle mobility and resisted motions in all planes (supine, long sit, or seated)
  - Supine and seated core stabilization
  - Seated/supine anti-rotation and Pallof press
  - Supine core isometrics with UE and LE dissociative movements
- **Criteria to progress:**
  - Pain-free ROM (0–90°)
  - Controlled pain and swelling
  - SLR without extensor lag

#### 6-12 weeks

- Avoid kneeling for at least 12 weeks post-op
- Begin progression to PWB, then FWB as tolerated, weaning off assistive devices
- Discontinue crutches and brace when sufficient quad activation/strength is achieved
- **ROM:**
  - Stationary bike
- **Proprioception and Balance:**
  - Initiate balance training
- **Strengthening:**

- Closed-chain functional exercises: mini squats, step-ups, lunging in the sagittal plane (avoid flexion >70°)
- Bridges
- Side steps (keep band proximal to minimize varus force on knee)
- Core strength and endurance exercises
- **Criteria to progress:**
  - Pain-free, non-antalgic gait without assistive device for limited distances
  - PROM normalized to contralateral side (100%)
  - Dynamometry strength at 80% compared to the contralateral leg

### **12-20 weeks**

- Initiate transverse plane and multiplanar motions
- Start plyometrics
- Restore power
- Gradual return to running starting at 16 weeks
- **Criteria to progress:**
  - Y-balance test >90%
  - 60-second continuous single-leg squat to 60° without compensations (femoral or lumbo-pelvic)
  - Plank and side plank for 60 seconds without compensations
  - Dynamometry strength at 90% compared to the contralateral leg
  - Return to prior level of function with minimal symptoms

### **>20 weeks**

- Full-body running (20-22 weeks post-op)
- Sport-specific dynamic exercises
- Return to sports between 6-9 months, when cleared by MD

**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