

Medial Collateral Ligament (MCL) Repair or Reconstruction

Physical Therapy Protocol

Phase I – Protection and Early Motion (Weeks 0–6)

Goals:

- Protect surgical repair
- Reduce pain and inflammation
- Prevent quadriceps inhibition and atrophy
- Initiate controlled range of motion
- Maintain NWB status and brace precautions

Brace:

- **Locked in full extension (0–0°) while upright** at all times
- Removed only for ROM exercises in a **supine position**

Weight Bearing:

- **Non-weight bearing (NWB) with crutches for full 6 weeks**

Range of Motion (ROM):

- Supine or Figure 4 position to keep varus stress
- Weeks 0–2: 0–90° ROM only
- Weeks 3–6: Progress to **full ROM as tolerated**

- No active or resisted knee flexion

Therapeutic Exercises:

- Ankle pumps
- Quadriceps sets
- Hamstring sets
- Straight leg raises (brace on)
- Patellar mobilization
- Supine heel slides (within ROM limits)
- Core and hip strengthening (without adduction/abduction)

Modalities:

- Cryotherapy
- E-stim for quadriceps re-education as needed

Phase II – Progressive Strengthening & Gait Training (Weeks 7–12)

Goals:

- Normalize gait pattern
- Restore full ROM
- Begin functional strengthening
- Initiate weight-bearing progression

Brace:

- Discontinued once quadriceps control is adequate (typically Week 6–7)

Weight Bearing:

- **Begin partial weight bearing Week 7**, progressing to WBAT over 2–3 weeks
- Wean off crutches as gait normalizes

Range of Motion:

- Full ROM encouraged
- Continue stretching to maintain full extension and flexion

Therapeutic Exercises:

- Closed chain quad and hamstring strengthening
- Step-ups and mini-squats
- Leg press (0–60° initially)
- Stationary bike and elliptical (low resistance)
- Balance training and proprioception drills
- Begin pool walking/running if incisions healed

Phase III – Advanced Strengthening and Neuromuscular Control (Weeks 13–20)

Goals:

- Improve strength, balance, and control
- Prepare for dynamic and sport-specific movements
- Achieve muscular symmetry

Therapeutic Exercises:

- Single-leg balance drills
- Agility ladder drills
- Lateral movements and cutting drills
- Sport cord resisted movement
- Hamstring curls, bridges, lunges
- Running progression (start linear → then directional changes)
- Begin low-level plyometrics

Phase IV – Return to Sport Phase (Weeks 20+)

Goals:

- Return to unrestricted sports participation
- Full functional symmetry
- Confidence and strength in dynamic environments

Therapeutic Exercises:

- High-level plyometrics (bounding, hops, box jumps)
- Acceleration/deceleration drills
- Change-of-direction and reactive agility work
- Sport-specific training tailored to position/activity

Criteria for Return to Sport:

- Full, pain-free ROM
- Strength \geq 90% of contralateral limb
- Successful completion of functional sport tests
- Surgeon clearance