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Medial Patellofemoral Ligament Reconstruction

Phase I: Protection Phase (0–6 weeks)

Goals:

- Protect surgical repair
- Reduce swelling
- Restore passive ROM
- Activate quadriceps

Restrictions:

- Weight bearing: **WBAT in brace locked in extension**
- **Brace:** Locked in extension for ambulation

Therapy Guidelines:

- ROM:
 - Week 0–2: 0–30°
 - Week 2–4: progress to 90°
 - Week 4–6: progress to full ROM as tolerated
 - Patellar mobilizations (medial/lateral)
 - Quad sets, straight leg raises (SLR)
 - Ankle pumps
 - Electrical stimulation (NMES) as needed for quad activation
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Phase II: Intermediate Phase (6–12 weeks)

Goals:

- Normalize gait
- Improve muscular strength
- Restore full ROM

Restrictions:

- Discontinue brace when quad control is adequate
- Full WB without assistive devices by 8 weeks

Therapy Guidelines:

- Stationary bike
 - Step-ups, mini squats (0–45°)
 - Leg press (0–60°)
 - Continue patellar mobs, stretching
 - Balance/proprioception: single-leg balance, BAPS board
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Phase III: Strengthening Phase (12–20 weeks)

Goals:

- Improve strength and endurance
- Dynamic balance and neuromuscular control

Therapy Guidelines:

- Progress to more aggressive strengthening:
 - Lunges, wall sits, resistance bands
 - Treadmill walking, elliptical
 - Agility drills (if no pain/instability)
 - Core and hip strengthening
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Phase IV: Advanced Strengthening / Return to Sport (4–6 months)

Goals:

- Return to running and sport-specific drills
- No instability or pain with activity

Criteria to begin running:

- Full ROM
- No effusion
- $\geq 80\%$ limb symmetry index on hop testing
- Good dynamic control (no valgus collapse)

Therapy Guidelines:

- Plyometrics: jump training, bounding
 - Cutting/pivoting drills
 - Sport-specific training
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Phase V: Return to Sport (6–9 months)

Criteria:

- No pain/swelling
 - Full ROM and strength
 - Pass return-to-sport tests (e.g., hop test, Y-balance)
 - Surgeon clearance
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Monitoring & Red Flags

- Avoid lateral patellar stress in early phases
- Watch for quad inhibition, swelling, stiffness
- Delayed ROM can lead to arthrofibrosis — early controlled motion is key