LOS ANGELES ORTHOPEDIC SURGERY
Specialists & Advanced Orthopedics

# MPFL RECONSTRUCTION PHYSICAL THERAPY PROTOCOL
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**Phase I (0-2 weeks): *Period of protection.***

- **Primary Goals:** Protect the reconstruction, minimize effusion, ROM to 60 deg of flexion, regain quadriceps control.
- **Weightbearing:** WBAT with the brace locked in extension.
- **Hinged Knee Brace:** Locked in extension for all activities (including sleeping). Removed for PT, ROM exercises and hygiene.
- **Range of Motion**: AROM/AAROM for flexion between 0-60 deg. PROM extension (no active extension).
- **Precautions:**
  - o Avoid patellar lateralization
  - o No active knee extension until 6 weeks post-op (Phase III)
- **Therapeutic Exercises:**
  - o Heel slides 0-60
  - o Quad sets with towel under heel
  - o Hamstring sets
  - o Ankle pumps
  - o Core and hip strengthening
  - o Non-weightbearing calf/hamstring stretches
  - o Very gentle patellar mobilization (medial ONLY)
  - o Cryotherapy and elevation important

**Phase II (2-6 weeks): *Healing phase.***

- **Primary Goals:** Increase ROM, supine straight leg raise without extensor lag, demonstrate good quadriceps contraction.
- **Weightbearing:** WBAT with the brace locked in extension.
- **Hinged Knee Brace:** Locked in extension for all activities (including sleeping) – removed for PT.
- **Range of Motion**: AROM/AAROM/PROM in flexion: 0-90 deg by 1 months, 120 deg by end of phase. Passive extension only.
- **Precautions:**
  - O Avoid patellar lateralization
  - o No active knee extension until 6 weeks post-op (Phase III)
- **Therapeutic Exercises:**
  - o As above.
  - o Initiate straight leg raises with brace locked in full extension. Can progress to straight leg raise out of the brace if capable of full extension; goal is to do a set of 30 SLRs to graduate out of the hinged knee post-op brace.

**Phase III (6-12 weeks): *Transitional Phase***

- **Weightbearing:** As tolerated. Focus should be on normalization of gait.

 **Hinged Knee Brace:** May discontinue if able to do a strong set of 30 SLR.
 **Range of Motion:** AROM/AAROM/PROM – Full pain free ROM 0-130
 **Therapeutic Exercises:**
    **o** Once no lag on SLR and no limp during gait (usually by 6 weeks), can begin closed-chain quad/core and hamstring strengthening as follows: for weeks 6-9, only do strengthening with knee bent 60 degrees or more; after 9 weeks, can begin to advance closed chain strengthening at progressively greater degrees of extension (advance ~20 degrees per week, such that strengthening is done from full extension to full flexion by 3 months).
        - No lunges.
    o Stationary biking at 6wks (no resistance)
    o Rowing, Elliptical and Stair Master at 8wks
    o Swimming at 10wks
    o Continue core and hip strengthening

**Phase IV (3-6 months): Advanced Phase**
 Weightbearing: Full
 Range of Motion: Full
 Therapeutic Exercises:
    o Light plyometrics initiated at 3 months, advance at 4 months
    o Criteria to start running program: walk with normal gait for 20 minutes, pain free ADLs, ROM > 0-125°, hamstring and quad strength >70% contralateral side, no pain, no edema, no crepitus, no giving-way
    o From 4.5 – 6 months, begin and advance sport-specific activities (running, agility training).
    o High-impact activities (jumping, contact sports) allowed once full motion and strength achieved (usually between 5-6 months).
 Return to sport
    o >90% limb symmetry with strength and functional testing
    o Demands of sport met
        - Muscular endurance
        - Flexibility
    o First season back to play in J-brace