**Medial Patellofemoral Ligament Reconstruction Rehabilitation Protocol**

*It is important to understand that all time frames are approximate and that progressions should be based on individual monitoring as well as type of surgery.*

MPFL Reconstruction is an operation to correct for lateral patellar instability. These patients are often chronic/recurrent lateral patellar dislocators. Often times traumatic injuries lead to tears or avulsion injuries of the MPFL.

**Rehab Considerations:** Patients will utilize a brace that will be locked at 0 deg during all weightbearing activities for the first 2-4 weeks depending on quadriceps strength. ROM will be progressed as follows:

- **Week 0-1:** 0°
- **Weeks 1-3:** 0°→90°
- **Weeks 3-4:** 0°→100°
- **Weeks 4-5:** 0°→110°
- **Weeks 5-6:** 0°→120°
- **Weeks 6-8:** Full painfree ROM

**Phase I (0-4 weeks)**
- **Weight Bearing:** Brace locked when ambulating. Unlock brace for weight bearing depending on quad control (2-4 weeks)
- **Recommended Treatment:**
  - Active warm-up: Nu-step, ¼-½ revolutions on bicycle (per ROM precautions)
  - Flexibility: hamstrings, gastroc-soleus complex, hip flexor.
  - Strength: quad sets, SLR 4-ways, TKE against T-band, NMES for quad/vmo reeducation
  - Gait training with cups (wks 2-4) to facilitate improved knee flexion in swing phase.
  - Balance/Proprioception exercises per weightbearing status.
  - Pain control: IFC and cryotherapy. Instruct patient to ice 4-5 times per day.

**Phase II (4-6 weeks)**
- **Weight Bearing:** 100% weight-bearing without crutches (depending on quad control).
  - D/C Brace (week 6)
- **Recommended Treatment:**
  - Active warm-up: Bike, elliptical
  - Manual therapy: scar mobilization, patellar mobilizations (avoid lateral glides)
  - Flexibility: Hamstrings, gastroc/soleus, hip flexor, ITB.
  - Strength: wall slides, hamstring isotonics, heel raises, SLR 4 ways, total gym. Open kinetic chain knee extension from 0°→45° (6 weeks). Treadmill walking program.
  - Gait training: with small cones if continued lack of knee flexion in swing phase.
  - Balance/Proprioception: Double limb BOSU, single leg stance on solid surface progressing to conforming surfaces.
  - Pain control: IFC and cryotherapy for pain control as needed.

**Phase III (6-12 weeks)**
- **Weight Bearing:** No restriction
Recommended Treatment:

- Active warm-up: Bike, elliptical, stepper
- Flexibility exercises: hamstring, gastroc/soleus complex, hip flexor, ITB
- Strength: OKC knee extension *(progress 0°→90° at week 8)*, hip strengthening, heel raises, step-ups, step downs (eccentrics), lunges, squats, leg press, ambulate against resistance.
- Balance/Proprioception: Continue with progressions double limb→single limb, solid surface→conforming surfaces, eyes open→eyes closed, predictable→unpredictable (perturbations).
- Initiate Treadmill jogging program. *(week 12-16)*
  Running progression
  1. Treadmill walking
  2. Treadmill walk/run interval
  3. Treadmill run
  4. Track: run straits, walk turns
  5. Track: run straits and turns
  6. Run on road

*Progress to the next level when patient is able to perform activity for 2 miles without increased pain or effusion. Perform no more frequently than every other day. Do not progress more than 2 levels in a day period.*

**Phase IV (months 4-6)**

- Agility drills/plyometrics
- Transition to home gym program
- Progress running program in regards to distance and speed.
- Anticipate return to sport at 5-6 months.

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