



## ***Isolated Medial Patellofemoral Ligament Repair Rehabilitation Program (MPFL)***

### **I. IMMEDIATE POSTOPERATIVE PHASE (Day 1 – Day 5)**

#### **Goals:**

- Diminish swelling/inflammation (control hemarthrosis)
- Diminish postoperative pain
- Initiate voluntary quadriceps control
- Independent ambulation

#### **Brace:**

- Brace for ambulation only (POD 1 – Week 4)

#### **Weightbearing:**

- As tolerated two crutches (approx. 50% weightbearing)

#### **Swelling/Inflammation Control:**

- Cryotherapy
- Compression bandage
- Foam donut pad placed lateral to PF joint to medially displace patella
- Elevation and ankle pumps

#### **Range of Motion:**

- Full passive knee extension
- Flexion to 30 degrees (Day 1 to 4)
- Flexion to 45 degrees (Day 5 to 7)
- PROM and gentle AAROM only

#### **Muscle Retraining:**

- Quadriceps setting isometrics
- Straight leg raises (flexion)
- Hip adduction
- NO active knee extension

#### **Flexibility:**

- Hamstring and calf stretches
- PROM/AAROM within ROM limitations



## II. ACUTE PHASE (Week 2-4)

### Goals:

- Control swelling and pain
- Promote healing of realignment tibial tuberosity
- Promote medial displacement of patella
- Quadriceps strengthening

### Brace:

- Continue brace for ambulation only
- Discontinue brace (week 4)
- Consider PF brace for ambulation and sleeping (Breg PTO, Bauerfeind P3, or DJO PF brace)

### Weightbearing:

- Progress WBAT (2 crutches for 4 weeks)

### Swelling/Inflammation:

- Continue use of cryotherapy
- Compression bandage with lateral foam donut
- Elevation

### Range of Motion:

- PROM/AAROM exercises
- Patella mobilization medial, superior, and inferior \*Never lateral\*
- Range of motion 0-60 degrees (week 2)
- Range of motion 0-75 degrees (week 3)
- Range of motion 0-90 degrees (week 4)

### Muscle Retraining:

- Electrical muscle stimulation to quads
- Quad setting isometrics
- Straight leg raises (flexion)
- Hip adduction/abduction
- Hip extension
- Gentle submaximal isometric knee extension (multi-angle)

#### Week 4:

- Light leg press
- Vertical squats (no weight)



**Flexibility:**

- Continue hamstring, calf stretches

**III. SUBCUTE PHASE – “MOTION” PHASE (Week 5-8)**

**Goals:**

- Gradual improvement in ROM
- Improve muscular strength and endurance
- Control forces on extension mechanism

**Weightbearing:**

- One crutch (week 4-6)
- Discontinue crutch week 6

**PF Brace:**

- Consider PF brace for ambulation and sleeping (Breg PTO, Bauerfeind P3, or DJO PF Brace)

**Range of Motion:**

- PROM 0-105° (week 5)
- PROM 0-115° (week 6)
- PROM 0-125/135° (week 8)
- Continue patella mobilizations medial, superior, and inferior.  
\*Never lateral\*

**Exercises:**

- Continue electrical muscle stimulation to quadriceps
- Quadriceps setting isometrics
- Hip adduction, abduction, and extension
- Vertical squats
- Leg press
- Knee extension light (0-60°)
- Bicycle (week 6-8)
- Pool program [walking, strengthening (when able)]

**Flexibility:**

- Continue all stretching exercises for LE

**Criteria to progress to Phase IV:**

- ROM at least 0-115°
- Absence of swelling/inflammation
- Voluntary control of quads



#### IV. STRENGTHENING PHASE (Week 9-16)

**Goals:**

- Gradual improvement of muscular strength
- Functional activities/drills

**Exercises:**

- Vertical squats (0-60°)
- Wall squats (0-60°)
- Leg press
- Forward lunges
- Lateral lunges
- Lateral step-ups
- Knee extension (0-60°)
- Hip adduction/abduction
- Bicycle
- Stairmaster

**Criteria to Progress to Phase V:**

- Full non-painful ROM
- Appropriate strength level (80% or greater of contralateral leg)
- Satisfactory clinical exam

#### V. RETURN TO ACTIVITY PHASE

**Goal:**

- Functional return to specific drills

**Exercises:**

- Functional drills
- Strengthening exercises
- Flexibility exercises
- Continue use of PF brace
- Gradually return to functional activities