

## Medial Patellofemoral Ligament Reconstruction With Lateral Release Rehabilitation Program

### I. IMMEDIATE POST-OPERATIVE PHASE (Day 1 - Day 5)

- Goals:** Diminish swelling/inflammation (control hemarthrosis)  
Diminish post-operative pain  
Initiate voluntary quadriceps control  
Independent Ambulation
- Brace:** Brace locked full extension for ambulation & sleeping only (POD 1 - Week 4)
- Weight Bearing:** As tolerated two crutches (approx. 50% WB)
- Swelling/Inflammation Control:** Cryotherapy  
Compression Bandage  
Foam donut pad placed lateral to PF joint to medially displace patella  
Under compression dressing to control swelling too  
Elevation & Ankle Pumps
- Range of Motion:** Full passive knee extension  
Flexion to 30 degrees (Day 1 to 4)  
Flexion to 45 degrees (Day 5- 7)  
PROM and gentle AAROM only  
Mobilize patella medially, superior & inferior
- Muscle Retraining:** Quadriceps setting isometrics  
Straight Leg Raises (Flexion)  
Hip Adduction  
Electrical muscle stim to Quads  
\* 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 soft tissue  
Promote medial displacement of patella (hip control & foot control)  
Quadriceps Strengthening
- Brace:** Continue brace for ambulation only  
Discontinue brace (week 4)  
Consider PF brace for ambulation & sleeping (Berg PTO, Bauerfeind P3, or DJO)  
PF Brace) at end of week 4
- Weight Bearing:** 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 & inferior  
Range of Motion 0 to 60-70 degrees (Week 2)  
Range of Motion 0 to 75-80 degrees (Week 3)  
Range of Motion 0 to 90-105 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. **SUBACUTE PHASE - "MOTION" PHASE (Week 5-8)**

- Goals:** Gradual improvement in ROM  
Improve muscular strength and endurance  
Control forces on extension mechanism
- Weight Bearing:** One crutch (week 4-6)  
Discontinue crutch week 6
- PF Brace:** Consider PF brace for ambulation & sleeping (Berg PTO, Bauerfeind P3, or DJO PF Brace)
- Range of Motion:** PROM 0-105/110 degrees (week 5)  
PROM 0-115/125 degrees (week 6)  
PROM 0-125/135 degrees (week 8)  
Continue patella mobilizations medial, superior & inferior
- Exercises:** Continue electrical muscle stimulation to quadriceps  
Quadriceps setting isometrics  
Hip adduction, abduction, and extension  
Vertical Squats  
Leg Press  
Knee Extension Light (0-60 degrees)  
Bicycle (week 6-8)  
Pool Program [walking, strengthening (when able)]
- Flexibility:** Continue all stretching exercises for LE

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

- Goals:** Gradual improvement of muscular strength  
Functional activities/drills

**Criteria To Progress to Phase IV:**

1. ROM at least 0-115 degrees
2. Absence of swelling/inflammation
3. Voluntary control of quads

**Exercises:**

Vertical Squats (0-60 degrees)  
Wall Squats (0-60 degrees)  
Leg Press  
Forward Lunges  
Lateral Lunges  
Lateral Step-ups  
Knee Extension (60-0 degrees)  
Hip Adduction/Abduction  
Bicycle  
Stairmaster machine

**V. RETURN TO ACTIVITY PHASE**

**Goal:** Functional return to specific drills

**Criteria to Progress to Phase V:**

1. Full Non-Painful ROM
2. Appropriate Strength Level (80% or greater of contralateral leg)
3. Satisfactory clinical exam

**Exercises:**

Functional Drills  
Strengthening Exercises  
Flexibility Exercises  
Continue use of PF brace  
Gradually return to functional activities