

Proximal or Distal Realignment +/- Medial Patellofemoral Ligament Reconstruction Rehabilitation Program

PHASE I Immediate Postoperative Phase (Day 1-5)

- **Goals:**
 - Diminish swelling/inflammation (control hemarthrosis)
 - Diminish postoperative pain
 - Initiate voluntary quadriceps control
 - Independent ambulation
- **Brace:**
 - Brace for ambulation only (POD 1 to Week 4)
- **Weight Bearing:**
 - As tolerated with two crutches (approx. 50% WB)
- **Swelling/Inflammation Control:**
 - Cryotherapy
 - Compression bandages
 - Elevation and ankle pumps
- **Range of Motion:**
 - Full passive knee extension
 - Flexion to 45° (day 1-4)
 - Flexion to 60° (day 5)
 - PROM and gentle AAROM only
- **Flexibility:**
 - Hamstring and calf stretches
 - PROM/AAROM with ROM limitations

PHASE II (Weeks 2-4)

- **Goals:**
 - Control swelling and pain
 - Promote healing of realignment tibial tuberosity
 - Quadriceps strengthening
- **Brace:**
 - Continue brace for ambulation only
 - Discontinue brace (week 4)
- **Weight Bearing:**
 - Progress WBAT (2 crutches for 4 weeks)
- **Swelling/Inflammation:**
 - Continue use of cryotherapy
 - Compression bandage
 - elevation

- **Range of Motion:**
 - PROM/AAROM exercises
 - ROM 0-75° (week 1-3)
 - ROM 0-90° (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
 - Week 4
 - Light leg press
 - Vertical squats (no weight)
- **Flexibility:**
 - Continue hamstring, calf stretches

Phase 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)
- **Range of Motion:**
 - PROM 0-115°
 - PROM 0-125°
 - PROM 0-125/135°
- **Exercises:**
 - Continue electrical muscle stimulation to quadriceps
 - Quadriceps setting isometric
 - 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

Phase IV – Strengthening Phase (Weeks 9-16)

- **Criteria to Progress to Phase IV**
 - ROM at least 0-115 degrees
 - Absence of swelling/inflammation
 - Voluntary control of quads
- **Goals:**
 - Gradual improvement of muscular strength
 - Functional activities/drills
- **Exercises:**
 - ½ vertical squats (0---60°)
 - Wall Squats (0---60°)
 - Leg press
 - Forward lunges
 - Lateral lunges
 - Lateral step-ups
 - Knee extension (60°-0)
 - Hip adduction/abduction
 - Bicycle
 - Stairmaster

Phase V – Return to Activity Phase

- **Criteria to enter Phase V**
 - Full non-painful ROM
 - Appropriate strength level (80% or greater for contralateral leg)
 - Satisfactory clinical exam
- **Goals:**
 - Functional return to specific drills
- **Exercises:**
 - Functional drills
 - Strengthening exercises
 - Flexibility exercises