



Dr. Huff Isolated Medial Patellofemoral Ligament Repair Rehabilitation Protocol

I. Immediate Post-Operative Phase (Day 1 – 5)

Goals: Diminish swelling/inflammation
Diminish post-operative pain
Initiate voluntary quadriceps control
Independent ambulation

Brace: Brace for ambulation 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
- Elevation & ankle pumps

ROM Exercises:

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

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 & sleeping

Weight Bearing: Progress WBAT (2 crutches for 4 weeks)

Swelling/Inflammation:

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

ROM Exercises:

- PROM/AAROM
- Patella mobilization medial, superior, & inferior
- ROM 0-60 degrees (Week 2)
- ROM 0-75 degrees (Week 3)
- ROM 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 isometrics knee extension (multi-angle)

Week 4

- Light leg press
- Vertical squats
- 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 and sleeping

ROM:

- PROM 0-105 degrees (Week 5)
- PROM 0-115 degrees (Week 6)
- PROM 0-125/135 degrees (Week 8)
- Continue patella mobilizations medial, superior, & inferior

Strengthening Exercises:

- Continue electrical stimulation to quadriceps
- Quadriceps setting isometrics
- Hip adductions, abduction, and extension
- Vertical squats
- Leg press
- Knee extension LIGHT (0-60 degrees)
- Bicycle (Week 6-8)
- Pool program (walking, strengthening – when able)

IV. Strengthening Phase (Weeks 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 adductions/abduction
- Bicycle
- Stairstepper 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 (90% or greater with functional testing)
3. Satisfactory clinical exam

Exercises:

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