

REHABILITATION FOLLOWING LATERAL RETINACULAR RELEASE +/- Medial Retinacular Plication

I. IMMEDIATE POST-OPERATIVE PHASE

Goals: Diminish swelling/inflammation (control hemarthrosis)
Initiation of quadriceps muscle training
Control stresses to medial retinacular
Medial mobilization of patella
Independent Ambulation

Weight Bearing: Two crutches weight bearing as tolerated (50%-75%)

**Swelling/
Inflammation Control:** Cryotherapy
Lateral "C" buttress pad
Compression Bandage
Elevation & Ankle Pumps

Range of Motion: ROM to 45-50 degrees
At least 45-55 degrees flexion by day 2-3
Patellar mobilization (especially medial), NO Lateral Glides*

Muscle Retraining: Quadriceps isometrics
Straight Leg Raises (Flexion)
Hip Adduction
* Knee Extension (painfree arc)

Flexibility: Hamstring Stretches
Calf Stretches
AAROM Knee Flexion (to 45-55 degrees)

II. ACUTE PHASE (Week 0-4)

Goals: Control swelling/inflammation
Control stresses to medial retinacular
Gradual Improvement in ROM
Quadriceps Strengthening (Especially VMO)

Note: *Rate of progression based on swelling/inflammation and patellar stability.*

Weight Bearing: Two crutches for 2 weeks (75%)
^b Progression based upon pain, swelling, and quad control.
Progress to one crutch week 3
Discontinue crutch at week 4

Swelling/Inflammation: Continue use of lateral "C" pad
Compression bandage
Cryotherapy, elevation 5-6 times/day

Range of Motion: Establish full passive knee extension
Rate of progression based upon swelling/inflammation and patellar stability
At least 60-65 degrees flexion (Week 1)
^b At least 90 degrees flexion (Week 2)
^b At least 105-110 degrees flexion (Week 3)
^b At least 110-115 degrees flexion (Week 4)
Patellar mobilization (especially medial)(gentle lateral mobilization)

ACUTE PHASE - Continued:

- Muscle Retraining: Electrical muscle stimulation to quads
 Quad Setting Isometrics
 Straight Leg Raises (flexion)
 Hip Adduction
 Knee Extension 60-0 degrees, painfree arc
^a Mini-Squats with adduction (squeeze ball)
^a Leg Press (40-100)
 * Bicycle (Stationary) if ROM/Swelling permits
 Proprioception Training
 -Cup walking, balance drills, balance beam, tilt board squats
- Flexibility: Continue Hamstring, Calf Stretches
 Initiate quadriceps muscle stretching (gentle)

III. SUBACUTE PHASE - MODERATE PROTECTION (Week 5-8)

- Goals: Eliminate any joint swelling
 Improve muscular strength and control without exacerbation of symptoms.
 Maintain patellar stability and proper tracking
 Functional exercise movements

Criteria to Progress to Phase III:

1. Minimal inflammation/pain
2. ROM (0-125 degrees)
3. Voluntary quadriceps contraction
4. Excellent patellar stability

- Range of Motion: Continue stretching to maintain full passive knee
 Gradually improve knee flexion to 0-125 degrees

- Exercises: Continue muscle stimulation to quadriceps (if needed)
 Quadriceps setting isometrics
 4 way Hip Machine (hip adduction, abduction, extension, and flexion)
 * Lateral Step-Ups (if able)
 * Front Step-Ups (if able)
^a ½ squats against wall (0-60 degrees)
^a Leg Press (45-100 degrees)
 Knee Extension (90-0 degrees), painfree arc
 Bicycle
 Pool Program (walking, strengthening, running)
 Proprioceptive Training (Continue balance training)

- Flexibility: Continue all stretching exercises for LE
 Especially hamstrings and calf

- Swelling/Inflammation: Continue use of ice, compression, and elevation, as needed.

IV. ADVANCED PHASE - MINIMAL PROTECTION (Weeks 9-13)

- Goals: Achieve maximal strength and endurance.
 Maintain patellar stability and proper tracking
 Functional activities/drills

Criteria To Progress to Phase IV:

1. Full Non-Painful ROM
2. Absence of swelling/inflammation
3. Knee extension strength 70% of contralateral knee.

ADVANCED PHASE - Continued:

- Exercises:
- ^a Wall Squats (0-70 degrees) painfree arc
 - ^a ½ Vertical Squats (0-60 degrees)
 - ^a Leg Press
 - Forward Lunges
 - Lateral Lunges
 - Lateral Step-ups
 - Front Step-ups
 - Knee Extension, painfree arc
 - Hip Strengthening (4 way)
 - Bicycle
 - Stairmaster®
 - Proprioception drills
 - Sport Specific functional drills (competitive athletes)
- Continue all stretching
Continue use of ice as needed

V. RETURN TO ACTIVITY PHASE (Week 13-26)

Goal: Functional return to unrestricted work/sport

Criteria to Progress to Phase V:

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

Exercises: Functional Drills
Strengthening Exercises (selected)
Flexibility Exercises

* If patient is able to perform painfree.

^a Exercise can be augmented by hip adduction contraction (ball squeeze).

^b Progression based upon assessment of pain, inflammation, and quadriceps control.