

REHABILITATION FOLLOWING LATERAL RETINACULAR RELEASE

I. IMMEDIATE POST-OPERATIVE PHASE

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

Weight Bearing: As tolerated two crutches

Swelling/ Inflammation Control:

- Cryotherapy
- Lateral "C" buttress pad
- Compression Bandage
- Elevation & Ankle Pumps

Range of Motion:

- ROM to tolerance
- At least 75 degrees flexion by day 2-3
- Patellar mobilization (especially medial)

Muscle Retraining:

- Quadriceps isometrics
- Straight Leg Raises (Flexion)
- Hip Adduction
- Knee Extension (painless arc)

Flexibility:

- Hamstring Stretches
- Calf Stretches
- AAROM Knee Flexion (to tolerance)

II. ACUTE PHASE

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

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

Weight Bearing:

- Progress WBAT (one crutch)
- ^b Progression based upon pain, swelling, and quad control.
- Discontinue crutch when appropriate.

Swelling/Inflammation:

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

Range of Motion:

- Rate of progression based upon swelling/inflammation.
- At least 90-100 degrees flexion (Week 1)
- ^b At least 105-115 degrees flexion (Week 2)
- ^b At least 115-125 degrees flexion (Week 3)

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
- Bicycle (Stationary) if ROM/Swelling permits
- Proprioception Training

Flexibility:

- Continue Hamstring, Calf Stretches
- Initiate quadriceps muscle stretching

III. SUBACUTE PHASE - MODERATE PROTECTION

Goals: Eliminate any joint swelling

Improve muscular strength and control without exacerbation of symptoms.

Functional exercise movements

Criteria to Progress to Phase III:

- 1) Minimal inflammation/pain
- 2) ROM (0-125 degrees)
- 3) Voluntary quadriceps contraction

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 □ squats against wall (0-60 degrees)
- ^a Leg Press
- Knee Extension (90-0 degrees), painfree arc
- Bicycle
- Pool Program (walking, strengthening, running)
- Proprioceptive Training.

Flexibility: Continue all stretching exercises for LE

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

IV. **ADVANCED PHASE - MINIMAL PROTECTION**

Goals: Achieve maximal strength and endurance.
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.

Exercises:

- ^a Wall Squats (0-70 degrees) painfree arc
- ^a 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**

Goal: Functional return to 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

Exercises:

- Functional Drills
- Strengthening Exercises (selected)
- Flexibility Exercises

* If patient is able to perform pain-free.

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

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