



NYUHJD

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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)

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
* Mini-Squats with adduction (squeeze ball)
* 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)
* ½ squats against wall (0-60 degrees)
* 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.

ADVANCED PHASE - Continued:

- Exercises:**
- Wall Squats (0-70 degrees) painfree arc
 - ^a ½ Vertical Squats (0-60 degrees)
 - Leg Press
 - Forward Lunges
 - Lateral Lunges
 - Lateral Step-ups
 - Front Step-ups
 - Knee Extension, painfree arc
 - Hip Strengthening (4 way)
 - Bicycle
 - Stairmaster^b
 - 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 painfree.

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

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