

Palmetto Health USC

ORTHOPEDIC CENTER

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REHABILITATION FOLLOWING LATERAL RETINACULAR RELEASE

I. IMMEDIATE POSTOPERATIVE PHASE

Goals

1. Diminish swelling/inflammation (control hemarthrosis)
2. Initiation of quadriceps muscle training
3. Medial mobilization of patella
4. Independent ambulation

A. Weight Bearing

1. As tolerated two crutches

B. Swelling/inflammation control

1. Cryotherapy
2. Lateral "C" buttress pad
3. Compression bandage
4. Elevation and ankle pumps

C. Range of Motion

1. Knee immobilizer x 48 hours post-op
2. Range of motion to tolerance
3. At least 75° flexion by day 3-4
4. Patellar mobilization (especially medial)

D. Muscle Retraining

1. Quadriceps isometrics
2. Straight leg raises
3. Hip abduction
4. Knee extension (pain free arc)

E. Flexibility

1. Hamstring stretches
2. Calf stretches
3. AAROM knee flexion (to tolerance)

II. ACUTE PHASE (2-3 weeks)

Goals

1. Control swelling/inflammation
2. Gradual improvement in range of motion
3. Quadriceps strengthening (especially VMO)

Note: rate of progression based on swelling/inflammation

- A. Weight Bearing
 1. Progress WBAT (one crutch)
 2. Progression based upon pain, swelling and quad control
 3. Discontinue crutch when appropriate
- B. Swelling/Inflammation
 1. Continue use of lateral “C” pad
 2. Compression bandage
 3. Cryotherapy, elevation 5-6 times/day
- C. Range of Motion
 1. Rate of progression based on swelling/inflammation
 2. At least 90-100° flexion (week 1)
 3. At least 105-115° flexion (week 2)
 4. At least 115-125° flexion (week 3)
- D. Muscle Retraining
 1. EMS to quads
 2. Quad setting isometrics
 3. Straight leg raises (flexion)
 4. Hip abduction
 5. Knee extension 60-0° (**pain free arc**)
 6. Mini-squats with adduction (squeeze ball) (**pain free ROM**)
 7. Leg press (**pain free ROM**)
 8. Stationary bike if ROM/swelling permits
 9. Proprioception training
 10. Hamstring curls
- E. Flexibility
 1. Continue hamstring, calf stretches
 2. Initial quadriceps muscle stretching
 3. Hip flexor and ITB stretching

III. SUBACUTE PHASE – MODERATE PROTECTION

*Criteria to progress to Phase III

1. Minimal inflammation/pain
2. Range of motion (0-125°)
3. Voluntary quadriceps contraction
4. D/C immobilizer with good quad contraction

Goals

1. Eliminate any joint swelling
2. Improve muscular strength and control without exacerbation of symptoms
3. Functional exercise movements

A. Exercises

1. Continue EMS to quads if needed
2. Quad sets
3. 4 way hip machine (flex, ext, abd, add)
4. Lateral step-ups, if pain free
5. Forward step-ups, if pain free
6. ½ wall squats (0-60°), if pain free
7. Leg press, if pain free
8. Knee extension (90-0°) (**pain free arc**)
9. Bicycle
10. Pool program (walking, strengthening, running)
11. Proprioception training

B. Flexibility

1. Continue all stretching for LE

C. Swelling/Inflammation

1. Continue use of ice, compression, and elevation as needed

IV. ADVANCED PHASE – MINIMAL PROTECTION

*Criteria to progress to Phase IV

1. Full pain free ROM
2. Absence of swelling/inflammation
3. Knee extension strength 70% of contralateral knee

- C. Exercises
1. Wall squats (0-70°) (**pain free arc**)
 2. ½ vertical squats (0-60°), if pain free
 3. Leg press, if pain free
 4. Forward lunges
 5. Lateral lunges
 6. Lateral step-ups
 7. Forward step-ups
 8. Hamstring curls
 9. Knee extensions (**pain free arc**)
 10. Hip strengthening (4 way)
 11. Bicycle
 12. Stairmaster
 13. Proprioception drills
 14. Sport specific functional drills
 15. Continue all stretching
 16. Continue use of ice as needed

V. **RETURN TO ACTIVITY PHASE**

*Criteria to progress to Phase V

1. Full pain free ROM
2. Appropriate strength (80% or greater of contralateral knee)
3. Satisfactory clinical exam

Goal

1. Functional return to work/sport

- A. Exercises
1. Functional drills
 2. Strengthening exercises (selected)
 3. Flexibility exercises