

Jennifer L. Cook, MD

Florida Joint Replacement and Sports Medicine Center

5243 Hanff Lane

New Port Richey, FL 34652

Phone: (727)848-4249 Fax: (727)841-8934

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° flexion by day 2-3
- Patellar mobilization (especially medial)

Muscle Retraining:

- Quadriceps isometrics
- Straight leg raises (flexion)
- Hip adduction
- *knee extension (pain free 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)
- ***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° flexion (week 1)
- ***At least 105-115° flexion (week 2)
- ***At least 115-125° flexion (week 3)

Muscle Retraining:

- Electrical muscle stimulation to quads
- Quad setting isometrics
- Straight leg raises (flexion)
- Hip adduction
- Knee extension 60-0°, pain free 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:

- Minimal inflammation/pain
- ROM (0-125°)
- 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°)
- **Leg Press
- Knee extension (90-0°), pain free 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:

- Full non-painful ROM
- Absence of swelling/inflammation
- Knee extension strength of 70% of contralateral knee

Exercises:

- **Wall squats (0-70°) pain free arc
- **Leg press
- Lateral step-ups
- Front step-ups
- Knee extension, pain free 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:

- Full non-painful ROM
- Appropriate strength level (80% of greater of contralateral leg)
- Satisfactory clinical exam

Exercises:

- Functional drills
- Strengthening exercises (selected)
- Flexibility exercises

* If patient is able to perform pain free.

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

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