

## PHYSICAL THERAPY PROTOCOLS

### REHABILITATION FOLLOWING LATERAL RETINACULAR RELEASE

#### I. IMMEDIATE-OPERATIVE PHASE POST (0-1 WEEK)

<b>Goals:</b>	<b><i>Diminish swelling/inflammation (control hemarthrosis)</i></b> <b><i>Initiation of quadriceps muscle training</i></b> <b><i>Medial mobilization of patella</i></b> <b><i>Independent ambulation</i></b>
Weight Bearing:	As tolerated two crutches
Swelling/ Inflammation Control:	Cryotherapy (Polar Care or ice pack) Compression bandage (ace wrap) Elevation & ankle pumps
Range of Motion:	ROM to tolerance At least 75 degrees flexion by Days 2-3 Patellar mobilization (especially medial)
Muscle Retraining:	Quadriceps isometrics Straight leg raises (flexion) Hip adduction *Knee extension (pain free arc)

#### II. ACUTE PHASE (2-3 WEEKS)

<b>Goals:</b>	<b><i>Control swelling/inflammation</i></b> <b><i>Gradual improvement in ROM</i></b> <b><i>Quadriceps strengthening (especially VMO)</i></b>  <i>Note: Rate of progression based on swelling/inflammation</i>
Weight Bearing:	Progress WBAT (one crutch) *Progression based upon pain, swelling and quad control; <i>D/C crutch when appropriate</i>
Swelling/Inflammation:	Compression bandage/knee sleeve Cryotherapy, elevation 5-6 times/day
Range of Motion:	Rate of progression based upon swelling/inflammation Week 1 = 90-100 degrees Week 2 = 105-115 degrees Week 3 = 115-125 degrees

Muscle Retraining:	Electrical muscle stimulation to quads Quad setting isometrics Straight leg raises (flexion) Hip adduction Knee extension 60-0 degrees, pain free arc Mini-squats with adduction (ball squeeze) Leg press (may add ball squeeze) Bicycle (stationary) if ROM/swelling permits Proprioception training
Flexibility:	Continue hamstring, calf stretches Initiate quadriceps muscle stretching

### III. SUBACUTE PHASE – MODERATE PROTECTION (3-6 WEEKS)

**Goals:** *Eliminate any joint swelling  
Improve muscular strength & 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 stim to quads (if needed) Quadriceps setting isometrics 4 way hip machine (add, abd, ext, flex) Lateral step-ups (if able) Front step-ups (if able) Wall squats (0-60 degrees) may add ball squeeze Leg press (may add ball squeeze) Knee extension (90-0 degrees), 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 PRN

### IV. ADVANCE PHASE – MINIMAL PROTECTION (6-10 WEEKS)

**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:	Wall squats (0-70 degrees) pain free arc Vertical squats (0-60 degrees)
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Leg press  
Forward lunges  
Lateral lunges  
Front step-ups  
Knee extension, pain free arc  
Hip strengthening (4 way)  
Bicycle  
Stairmaster  
Proprioception drills  
Sport specific functional drills (competitive athletes)

Flexibility: Continue all stretching  
Continue use of ice as needed

#### **V. RETURN TO ACTIVITY PHASE (10-14 WEEKS)**

**Goal:** *Functional return to work or sport*

*Criteria to Progress to Phase V:*

- 1. Full non-painful ROM*
- 2. Appropriate strength level (80% or greater of contralateral leg)*
- 3. Satisfactory clinical exam*

Exercises: Functional drills  
Strengthening exercises  
Flexibility exercises