



Virtua Reconstructive Orthopedics
SPORTS MEDICINE & ARTHROSCOPY

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MPFL Repair Rehabilitation Protocol

I. IMMEDIATE POST-OPERATIVE PHASE (Week 1)

Goals: Diminish swelling/inflammation (control hemarthrosis)

Initiation of quadriceps muscle training

Independent Ambulation

Weight Bearing: As tolerated with crutches and brace locked at 0-30 degrees of flexion

Swelling/ Inflammation Control: Cryotherapy, NSAIDS, Elevation & Ankle Pumps

Range of Motion: ROM to 30 degrees of flexion in brace

Muscle Retraining: Quadriceps isometrics, Straight Leg Raises, Hip Adduction

Flexibility: Hamstring Stretches, Calf Stretches

II. ACUTE PHASE (Week 2-6)

Goals: Control swelling/inflammation

Gradual Improvement in ROM

Quadriceps Strengthening (Especially VMO)

Note: Rate of progression based on swelling/inflammation.

Weight Bearing: Discontinue crutches when appropriate, Progress WBAT with brace.

Swelling/Inflammation: Cryotherapy, NSAIDS, Elevation and Ankle Pumps

Range of Motion: Rate of progression based upon swelling/inflammation.

At least 60 degrees flexion (Week 2)

At least 90 degrees flexion (Week 4)

Full flexion (Week 6-8)

Muscle Retraining: Electrical muscle stimulation to quads

Quad Setting Isometrics

Straight Leg Raises (flexion)

Hip Adduction

Knee Extension 60-0 degrees, painfree arc

* Bicycle (Stationary, in brace) if ROM/Swelling permits

Proprioception Training

Flexibility: Continue Hamstring, Calf Stretches

Initiate quadriceps muscle stretching

III. SUBACUTE PHASE - MODERATE PROTECTION (Week 6-12)

Goals: Eliminate any joint swelling

Improve muscular strength and control without exacerbation of symptoms.

Functional exercise movements

May discontinue brace

Criteria to Progress to Phase III:

1. Minimal inflammation/pain

2. ROM (0-near full flexion)

3. Strong 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)

Squats against wall (0-60 degrees)*

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 (Week 12-16)

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) painfree arc

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®

Proprioception drills
Sport Specific functional drills (competitive athletes)
Jogging Program
Continue all stretching

V. RETURN TO ACTIVITY PHASE (Week 16-20)

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

Continue Jogging/Running Program

Strengthening Exercises (selected)

Flexibility Exercises

* If patient is able to perform pain free.