



Goshen Physicians

ORTHOPEDICS & SPORTS MEDICINE

MPFL Reconstruction 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

Swelling: Ice, NSAIDS, Elevation & Ankle Pumps

Range of Motion: Knee immobilizer/ Splint

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: Ice, NSAIDS, Elevation and Ankle Pumps

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

At least 40 degrees flexion (Week 2)

At least 70 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, pain free 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), pain free arc
Bicycle
Pool Program (walking, strengthening, running)*
Proprioception Training.

Flexibility: Continue all stretching exercises for LE

Swelling: 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
Continue use of ice as needed

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.