

Updated Aug 2018

MPFL Reconstruction Rehab Protocol

POST OPERATIVE MANAGEMENT

- Pain control with ice, elevation, compression, and anti-inflammatories

Week 0-2:

- Initiation of quadriceps muscle training
- Weight Bearing: Touch-down with crutches and brace locked
- Swelling/ Inflammation Control: Cryotherapy, NSAIDS, Elevation
- Range of Motion: 0 to 30 degrees of flexion in brace
- Muscle Retraining: Quadriceps isometrics, straight leg raises, flexibility, hamstring stretches, calf stretches

Week 2-6:

- ROM: Increase 15 degrees every week until 90 degrees (week 6)
- Weight Bearing: Can fully weight bear only when brace is locked at 0 degrees extension.
- Swelling/Inflammation: Cryotherapy, NSAIDS, Elevation

Exercises:

- Quadriceps Strengthening (Especially VMO)
- Muscle Retraining: Electrical muscle stimulation to quads
- Quad Setting Isometrics
- Initiate quadriceps muscle stretching
- Straight Leg Raises (flexion)
- Hip Adduction
- Bicycle (Stationary, in brace) if ROM/Swelling permits
- Proprioception Training
- Flexibility: Continue Hamstring, Calf Stretches

Criteria to Progress:

- Minimal inflammation/pain
- ROM (0-90)
- Strong quadriceps contraction

Week 6-12:

- Discontinue brace at 6 weeks
- Full knee ROM
- Swelling/Inflammation: continue use of ice, compression, and elevation, as needed.
- Improve muscular strength and control without exacerbation of symptoms.
- Functional exercise movements
- Flexibility: continue all stretching exercises for LE

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)*
- Proprioceptive training

Criteria To Progress:

- Full Non-Painful ROM
- Absence of swelling/inflammation
- Knee extension strength 70% of contralateral knee.

Week 12-16:

- Goals: Achieve maximal strength and endurance.
- Functional activities/drills

Exercises:

- Wall Squats (0-70 degrees) pain free arc
- Vertical Squats (0-60 degrees)*
- Leg Press
- Forward Lunges
- Lateral Lunges
- 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)
- Jogging Program
- Continue all stretching
- Continue use of ice as needed

Criteria to Progress:

- Full Non-Painful ROM
- Appropriate Strength Level (80% of greater of contralateral leg)
- Satisfactory clinical exam

Week 16-24:

- Goal: Functional return to work/sport pain free
- Introduce sport specific training and functional drills

Criteria for discharge:

1. Full, pain free range of motion
2. Strength is equal bilaterally
3. Has met specific functional/activity goals
4. Has been cleared by physician