

Postoperative Rehabilitation Protocol for MPFL Reconstruction



Dr. MacLean

Physical therapy should be started within a few days after surgery

Postoperative weeks 0-6

PRECAUTIONS/RESTRICTIONS

- Weight-bearing
 - 0-2 weeks: 50% weight bearing.
 - 2-4 weeks: weight-bearing as tolerated in brace with appropriate assistive device on level surfaces and stairs
- Brace:
 - 0-4 weeks: 0-90 degrees
 - Leave brace unlocked at all times following nerve block resolution
 - Brace may be removed while sleeping, for hygiene and therapy
 - Avoid ambulation without brace for first 4 weeks
- Avoid lateralization of patella

RANGE OF MOTION

- AAROM and PROM: 0-90 degrees with no forced flexion

STRENGTHENING

- Restore quadriceps recruitment
- Ankle pumps
- Quad sets (consider NMES for poor quad sets), Glute sets
- SLR – 4 way
- Hamstring activation – heel slides, hamstring sets, bridges
- Balance/proprioception as tolerated

MODALITIES PRN

Postoperative weeks 7-10

PRECAUTIONS/RESTRICTIONS

- Avoid lateralization of patella

- Normalize gait pattern with fully extended knee in effort to fight quadriceps avoidance

RANGE OF MOTION

- Knee extension: full PROM and AAROM to full knee extension
- Limit ROM 0-110 degrees (until 8 weeks)
- ROM 0-120 degrees by 10 weeks
- ROM to full flexion by 10+ weeks

STRENGTHENING

- Progress quadriceps strengthening
- Advance proximal strength and core training
- Initiate balance and proprioceptive training

SUGGESTED EXERCISES

- Gait training: heel toe gait pattern [with adequate quad control (SLR without a lag, ability to achieve terminal knee extension) and knee ROM] to ensure normal loading response
- Underwater treadmill (adequate wound healing) or anti-gravity treadmill for gait: Low grade elevation or retro-walking
- Progress pain-free arc of motion, close chain preferred
- Submaximal multi angle isometrics
- Leg press: monitor arc of motion (bilateral, eccentric)
- Initiate forward step up (FSU) progression, 6” step with adequate strength
- Stationary Bike – progress seat height and resistance as tolerated
- Hip extension with knee flexion, side planks, bridge
- Balance and proprioceptive training: double limb support on progressively challenging surfaces to single limb support on level surface only with demonstration of good alignment, stability, and control

MODALITIES PRN

*If you have any problems or questions, please call your doctor's office (8am-5pm).
Answering service for after hours.*

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Postoperative weeks 11-18+

PRECAUTIONS

- Avoid symptom provocation
- Correct any gait deviations in ROM or patellar tracking

RANGE OF MOTION

- Maintain full ROM

STRENGTHENING

- Advance proximal strength through functional activities
- Balance progression with postural alignment and N-M control

SUGGESTED EXERCISES

- Balance progression with postural alignment and N-M control (static to dynamic, introduce different planes of motion, challenging surfaces)
- Address muscle imbalances
- Promote cross training: elliptical, stationary bike, swimming
- Initiate running progression (late phase)
- Initiate bilateral leg plyometric program with MD clearance and evidence of good eccentric quadriceps control

Postoperative weeks 19-24 (advanced strengthening and function)

GOALS

- If isokinetic testing available, aim for 85% limb symmetry index (LSI) at 180° / sec and 300° / sec
- Cardiovascular fitness to meet demands of sport

PRECAUTIONS

- Pain with therapeutic exercise & functional activities
- Inadequate strength, functional strength, ROM, flexibility, fitness when returning to sport

RANGE OF MOTION

- Maintain full ROM

STRENGTHENING

- Continue to advance LE strengthening, flexibility, dynamic single limb stability & agility programs

SUGGESTED EXERCISES

- Continue to advance LE strengthening, flexibility, dynamic single limb stability & agility programs
- Address muscle imbalances – evaluation-based
- Advance core stability
- Continue cross training
- Advance plyometric program with MD clearance and evidence of good eccentric quadriceps control
- Vertical jumping progression: Jump down
- Horizontal jumping progression: Broad jump, single leg landings
- Progress running program
- Cutting, deceleration, change or direction with MD clearance and dynamic single limb stability

Criteria for discharge/return to sport

GOALS

- If available - Isokinetic test at 180°/ sec and 300°/ sec: 85% limb symmetry index (LSI)
- Demonstrate symmetry, quality, and alignment during selected movement patterns
- Medical clearance by surgeon for return to play progression
- Lack of apprehension with sport specific movements
- Hop Test > 85% limb symmetry
- Demonstrate quality of movement with required sports specific activities