



**MPFL RECONSTRUCTION
POST OPERATIVE THERAPY PROTOCOL
ALAN H. LEE, M.D.**

WB: TDWB x 1 week

WBAT week 2

Brace: Locked at 0 degrees extension x 6 weeks with ambulation

ROM: 0-30 week 1-4

0-60 week 5

0-90 week 6

Phase I -Tissue Protection/Healing Phase (0-4 weeks)

Goals: 1)Reduce pain
2)Reduce effusion
3)Minimize scar adhesion formation
4)Achieve full knee extension ROM
5)Facilitate quadriceps activation
6)Protect from excessive patellar lateral stress or genu valgus stress

ROM: PROM/AAROM/AROM (0-MD prescribed limit)

Exercise: Multiangle Quad Isometrics (per ROM limits)
SLR abd/add/ext (brace locked)
Calf Raises

Single Limb Stance
Manual: Patella Mobilizations (caution lateral glide)
Soft Tissue Mobilization patellar tendon

Modalities: Functional Electrical Stimulation (not directly on VMO)
Biofeedback
Cryotherapy

Criterion for Progression:

1)Voluntary quadriceps isometric contraction

2)Full knee extension AROM

3)Knee ROM 0-30 degrees

Phase II – Tissue Proliferation Phase/Progression Phase (5-8 weeks)

Goals: 1)Pain and edema control
2)Minimize scar adhesion formation
3)Improve knee AROM
4)Strength progression - develop function quad control
5)Normalize gait pattern



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ORTHOPAEDIC SURGERY AND SPORTS MEDICINE

- ROM:** ROM (0-MD prescribed limit)
- Exercise:** SLR flexion (brace locked)
Sidelying hip abd/ER
Wall Sits (30 degrees)
WB Terminal Knee Extension (30-0 degrees)
Open Chain Knee Ext (90-30)
Open Chain Knee Flex (0-90)
Closed Chain knee flex/ext (80-0)
Step up/down
Balance Board/Wobble Board (Bilateral)
- Manual:** Initiate Scar Mobilization
- Modalities:** Patellar taping - medial glide
- CV Exercise:** Bike, Elliptical, Stair Climber (ROM permitting)
Swimming – Flutter Kick only

Criterion for Progression:

- 1) *Minimal to no edema/effusion*
- 2) *Knee ROM 0-90 degrees by week 6*
- 3) *Full patellar mobility*
- 4) *No extensor lag with SLR*
- 5) *Ambulate on level surfaces without brace with quad control*

Phase III – Tissue Remodeling/Hypertrophy Phase (week 9-18)

- Goals:** 1) Full knee AROM
2) Improve eccentric quad control
3) Initiate advanced SL proprioception activities and lateral motion
4) Strength progression
5) Begin light jogging week 16

- ROM:** ROM to full
- Exercise:** Initiate lateral motion
Single limb balance with perturbations
- CV Exercise:** Initiate jogging by week 16

Criterion for Progression:

- 1) *No effusion*
- 2) *Full ROM*
- 3) *20 reps to 60 degrees single Leg squat with eccentric control and good lower extremity alignment*
- 4) *Quad strength >80% of uninvolved LE (10RM single leg press or isokinetically if available)*
- 5) *Jogging without pain or antalgic gait*



Phase IV – Sport Specific Training (week 19-24)

Goals:

- 1)Begin sport specific drills
- 2)Normalize neuromuscular control
- 3)Normalize jumping/landing mechanics if indicated
- 4)Prepare for return to sport

Exercise:

Progress on running progression
Begin agility progression
Begin plyometric progression
Progress on sport specific training
Swimming – initiate whip kick/breast stroke (week 24)
Cutting sports and Golf (week 24)

Criterion for Return to Sport: *(Recommend combination testing of strength, agility, and power according to available resources/clinic setting)*

- 1)Quad strength > 90% of uninjured (10RM leg press or isokinetic testing)**
- 2)IKDC (MCID 6.3@ 6mo; 16.7 @ 12 mo)**
- 3)Confidence Question**