DR. KAISEN YAO, MD

ORTHOPEDIC SPORTS MEDICINE SURGEON

Post-Operative Physical Therapy Protocol

MPFL Reconstruction

Northwell Health • Department of Orthopedic Surgery & Sports Medicine • Dr. Kaisen Yao, MD

Patient Name	Date of Surgery	Prescribing Surgeon
		Dr. Kaisen Yao, MD

General Guidelines & Precautions

- Wear the brace as prescribed, typically locked in extension for ambulation in the first weeks, and follow surgeon-specific weight-bearing and flexion limits.
- Protect the reconstructed ligament by avoiding pivoting, twisting, and forceful lateral stress on the kneecap.
- Prioritize swelling control with ice, compression, elevation, and ankle pumps.
- Contact the surgeon for fever, calf pain, excessive drainage, uncontrolled pain, or a sensation of the kneecap shifting or giving way.

PHASE I
Immediate Post-Op

TIMEFRAME
WEEKS 0–4

Goals:
Protect the graft, control pain and effusion, achieve full passive extension, gradually improve flexion, and restore quadriceps activation.

Precautions:
Brace locked in extension for ambulation until cleared; flexion generally progressed gradually per surgeon protocol; avoid pivoting, twisting, and resisted terminal knee extension that stresses the patellofemoral joint.

Interventions:
Cryotherapy, compression, elevation, ankle pumps, patellar mobilizations, gentle heel slides within allowed range, extension stretching, quad sets, straight-leg raises without lag, and hip/core strengthening.

Criteria to Progress:
Full passive extension, flexion progressing per protocol, minimal increase in swelling, and straight-leg raise without lag.

PHASE II

Progressive Motion & Weight Bearing

TIMEFRAME

WEEKS 4–8

Goals:
Progress toward full range of motion, wean from the brace and assistive device as cleared, and normalize gait.

Interventions:
Progress closed-chain strengthening with mini-squats and leg press in a protected, pain-free arc, stationary bike, bridges, hamstring strengthening, and balance/proprioception drills, with attention to quadriceps and hip strength to support patellar tracking.

Activity:
Gradually increase walking and daily activities; continue to avoid running, jumping, cutting, pivoting, and kneeling.

Criteria to Progress:
Full weight bearing without an assistive device, minimal effusion, normalized gait, and improving single-leg control.

PHASE III

Strengthening & Dynamic Control

TIMEFRAME

WEEKS 8–16

Goals:
Restore full range of motion and strength, and build dynamic patellofemoral control for higher-level function.

Interventions:
Progress closed-chain strengthening, step-downs, split squats, single-leg strengthening, core and hip training, elliptical, cycling, and proprioceptive drills, emphasizing controlled, well-aligned patellar tracking throughout.

Functional Focus:
Emphasize symmetrical, well-controlled mechanics during squatting, stair negotiation, and single-leg activities, avoiding dynamic valgus.

Criteria to Progress:
No reactive swelling, full range of motion, adequate strength relative to the uninvolved side, and no apprehension or instability with functional movement.

PHASE IV

Return to Running, Agility & Sport

TIMEFRAME

4–9 MONTHS

Goals:
Safely progress running, plyometrics, and pivoting activity while maintaining excellent patellar control.

Interventions:

Criterion-based walk-jog progression, double-leg then single-leg plyometrics, cutting and pivoting drills as tolerated, and sport-specific retraining.

Return to Sport/Work:
Pivoting and contact sports are typically restricted until strength, control, and confidence are adequate (often 6–9 months) and should follow surgeon and therapist clearance.

Discharge Criteria:
Full range of motion, no apprehension with patellar translation, symmetrical strength and functional testing, and safe mechanics during advanced dynamic and pivoting tasks.

This protocol is a general guideline. Progression should be individualized by the treating physical therapist in coordination with Dr. Yao's office based on graft type, concomitant procedures, and patellar tracking on exam.