

MPFL / Patellofemoral Marrow Stimulation +/- Biocartilage / Cartiform
Postoperative Rehabilitation Protocol
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Starting Immediately:

- Compressive soft dressing
- Hinged knee brace or immobilizer locked in full extension
- CPM can be used per patient preference but not required
 - o CPM to be used at least 6 hours per day
 - o If no CPM, patient should perform 500 reps of motion daily within the prescribed ROM parameters.
- Commerical cryo/compression devices are suggested to facilitate swelling reduction, pain control, and decreased pain medication requirements
- E – stim to quad

	Weightbearing	Brace	ROM	Exercise
Phase I Week 0 - 6	<u>POW 0 – 2:</u> WBAT with brace locked and knee in full extension <u>POW 3 – 4:</u> Brace unlocked 0 – 45 <u>POW 5 – 6:</u> Brace unlocked 0 - 90	<u>Day 0 – 3:</u> Brace to keep knee locked in full extension for minimum of 3 days. <u>POW 0- 2:</u> Locked in full extension <u>POW 3 – 4:</u> Unlock 0 – 45 <u>POW 5 – 6:</u> Unlock 0 - 90	DO NOT START ROM UNTIL MINIMUM OF 3 DAYS FROM SURGERY! This gives cartilage graft time to initially heal. <u>POW 0 – 2:</u> CPM/PROM 0 – 30 <u>POW 3 – 4:</u> CPM/PROM 0 – 60 <u>POW 5 – 6:</u> CPM/PROM 0 - 90	<u>POW 0 – 2:</u> Quad sets/isometrics. Patella mobs. Ankle ROM Calf pumps No SLR! <u>POW 3 – 6:</u> Add side lying hip (in brace). Standing 4 way hip. Add SLR.
Phase II Week 6 - 8	WBAT	None	Full ROM	Add heel raises, very light closed chain max 0 – 90. Gait normalization, eccentric quad, eccentric hamstring, advance core, glute/pelvis stability.

Phase III Week 8 - 12	WBAT	None	As tolerated	Progress closed chain activities and gait training Begin unilateral stance activities, balance training, hamstring work, hip/core/glutes Begin stationary bike at 10 wks with low resistance as tolerated
Phase IV 12 - 24	WBAT	None	Full	Advance Phase II exercises; maximize core/glutes, pelvic stability work, eccentric hamstrings, balance Swimming as tolerated after 12 weeks Elliptical as tolerated after 16 weeks
Phase V 6 months +	WBAT	None	Full	Advance all “non-impact” activities. Consideration of return to sport/labor around 6 – 8 months. Functional testing PRN.

Adapted from:

Cole et al Arthroscopy 2021

Pagenstert et al Arthroscopy 2012

O'Neill et al JBJS 1997

Reagan Clin Sport Med 2014

Magnussen et al Arthroscopy 2014

Duchman et al Clin Sport Med 2014

Tjoumakaris et al AJSM 2010

Noyes' Knee Disorders Text

Woodmass et al Arthrosc Tech 2017