

MPFL Reconstruction

Rehab Protocol

	Weight Bearing	ROM	Brace	Therapeutic Elements
Phase I				
0-2wk	TTWB w/ Crutches	*FULL extension! Flexion 0-90 don't force flexion	Locked in full extension for ambulation and sleep	Modalities as needed. Heel slides, quad and hamstring sets, patella mobilization, Prone hangs & extension board. Start BFR. Non-Weight bearing gastroc / soleus stretches. SLR with brace locked in extension until no extension lag, then unlock brace for SLR.
2-4wk	WBAT w/ Crutches	Progress flexion to full as tolerated	Same	
4-6wk	WBAT w/ Crutches	Continue progress full flexion and MAINTAIN FULL EXTENSION !	Week 4: Progressively open to 90 for ambulation when ROM90 flexion and easily performs repetitive SLR without lag-locked in extension for sleep	
Phase II	Begin weaning crutches: D/C crutches when $\geq 0^\circ$ knee extension & 90° knee flexion, can easily perform repetitive SLR without lag, minimal effusion, and can ambulate without a limp	Full ROM	Discontinue when walking with no limp w/o crutches and appropriate quad control	Stationary Bike when flexion 115, Wall sits, Lunges, balancing exercises Closed chain strengthening: Leg press, step ups, step downs, RDLs, lunges, Bulgarian squats, wall sits Advance hip abduction & glut strength: band walks, lateral lunge, reverse lunge. Proprioceptive training. Core Strength
6-12 weeks				
Phase III	FWB	FULL	None	Continue strengthening. Can begin underwater treadmill if available, focus on form Stationary bicycle and elliptical for fitness. Can begin straight ahead running progression <u>*when meets criteria on page 2*</u>
12-16 weeks				
Phase IV	FWB	FULL	+/- Patella Stabilization Brace	Increase flexibility, forward backwards running <u>**Can begin Agility when meets criteria on page 2**</u> Sports specific training, cutting, plyometrics, agility, jump and landing advanced strengthening program in brace. Objective (LEAP) testing done around 5 months for baseline and retest periodically to determine readiness. To Pass need $>or=95\%$. Anticipated full return to sport around 6 months. <u>Begin return to sport progression outlined on page 2 after passing LEAP TEST</u>
4-6 Months				

***CRITERIA TO BEGIN STRAIGHT LINE JOGGING AFTER 12 WEEKS:**

- PAIN LESS THAN 3 / 10 (WORST)
- WITHIN 2° NORMAL KNEE EXTENSION & 120° KNEE FLEXION
- QUADRICEPS & HAMSTRING STRENGTH > 60% NORMAL
- LESS THAN 4cm DEFICIT ON SINGLE-LEG SQUAT (ANTERIOR REACH)
- AT LEAST 1 MINUTE OF SINGLE LEG SQUATS
- DOCTOR APPROVAL

Jogging Progression:

- Running prep exercises: focus on the deceleration phase such as DL speed squats, DL drop squats, DL “bounce bounce bounce squat”, then progress to alternating SL drop squats.
- Initiate jogging and progress to in-line running: Begin on treadmill with 2- 3 days per week. Begin with 1:1 or 2:1 walk to jog ratios, (ie. 1 min walk to 1 min jog or 2 min walk to 1 min jog). Then progress each week by 1 min jog until 12-15 min of jogging is achieved.

***CRITERIA TO BEGIN AGILITY WORK IN PHASE IV:**

- PAIN LESS THAN 2 / 10 (WORST)
- QUAD & HAM STRENGTH > 80% NORMAL; > 50% H/Q RATIO FOR FEMALES
- AT LEAST 3 MINUTES OF SINGLE LEG SQUATS
- JOGGING >15 MINUTES ON TREADMILL
- DOCTOR APPROVAL

Agility: (NO single leg Plyo's until at least POW 20)

- Ladder drills, footwork agility drills, cone drills
- Double leg plyos: jump rope, line jumps, cone jumps, depth jumps, box jumps
- High intensity predictable patterned movements, incorporate sport specific drills

****CRITERIA TO RETURN TO PLAY:**

- PAIN LESS THAN 2 / 10 (WORST)
- QUAD & HAM STRENGTH > 90% NORMAL; > 60% H/Q RATIO FOR FEMALES
- 95% ON LEAP TESTING
- DOCTOR APPROVAL

• After above clearance, the Return to play progression is as follows:

- 1) Return to non-contact practice/individual drills
- 2) Return to contact practice
- 3) Return to scrimmage
- 4) Return to interval play
- 5) Return to full play