Noyes Knee Institute Postoperative Rehabilitation Protocol for Proximal-Distal Extensor Realignment and MPFL Reconstruction

	1-4 Wk	5-8 Wk	9-12 Wk	4-6 Mo	7-12 Mo
Brace	X	WK	WK	NIO	IVIO
Soft postoperative motion	Λ	X	X	X	X
Patellar (optional, symptoms)		Λ	Λ	Λ	Λ
ROM minimum goals					
0-90° (wk 1-2)	X				
0-110° (wk 3-4)	X				
0-110 (WK 5-4) 0-135°	Λ	X			
Weight-bearing		Λ			
50% body weight (wk 1-2)	X				
100% body weight (wk 1-2)	X				
		37			
Patella mobilization	X	X			
Modalities					
Electrical muscle stimulation	X	X			
Biofeedback	X	X			
Pain/edema management (cryotherapy)	X	X			
Stretching: Hamstring, gastrocnemius-soleus, iliotibial band,	X	X	X	X	X
quadriceps					
Strengthening					
Quadriceps isometrics, straight leg raises,	X	X			
Active knee extension	X	X	X		
Closed-chain: gait retraining, toe raises, wall sits, mini-squats	X	X	X	X	
Knee flexion hamstring curls (90°)	X	X	X	X	X
Knee extension quadriceps (90-30°)	X	X	X	X	X
Hip abduction-adduction, multi-hip		X	X	X	X
Leg press (70-10°)		X	X	X	X
Balance/proprioceptive training					
Weight-shifting, mini-trampoline, balance board, Biomechanical	X	X	X	X	X
Ankle Platform System, Biodex Balance System, plyometrics					
Conditioning					
Upper body weight training, core training	X	X	X	X	X
Upper body cycle	X	X			
Bike (stationary)				X	X
Water walking		X	X	X	X
Swimming (kicking)	1		X	X	X
Walking		X	X	X	X
Ski machine		X	X	X	X
Running: straight			X*	X	X
Cutting: lateral carioca, figure eights				X*	X
Plyometric training, full sports				X*	X

^{*}Only for patients with normal articular cartilage in the patellofemoral joint.