



Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

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REHABILITATION PROTOCOL- MPFL Reconstruction

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehab compliance, tissue quality and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p

PHASE 1- Surgery to 4 weeks

REHAB GOALS	<ul style="list-style-type: none"> • Control inflammation and pain • Protect soft tissue fixation • Full active extension and 90 degrees of flexion • Achieve quadriceps control
PRECAUTIONS	<ol style="list-style-type: none"> 1. Crutches for 4 weeks, may gradually wean from 2 crutches to 1 crutch to no crutches as long as knee is in locked brace and there is no increase in pain or swelling for 4 weeks. 2. Brace on for sleep for 2 weeks, afterwards can remove for sleep. 3. Weight-bearing as tolerated (WBAT) with brace locked in extension for 3 weeks 4. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session 5. Ok to remove brace for exercises except straight leg raises 6. No knee flexion past 90 degrees for 3 weeks
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Knee extension on a bolster ○ Prone hangs ○ Supine wall slides and heel slides to 90 degrees

SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> • Straight leg raises in all planes (use brace locked in extension for SLRs) • Heel slides to 90 degrees, calf pumps, gentle quadriceps sets • Electrical stimulation and biofeedback to regain quad function • Patellar mobilization <ul style="list-style-type: none"> ○ Ankle ROM and resistive exercises with sports tubing (Theraband)
CARDIOVASCULAR EXERCISE	Upper body circuit training or UBE
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Pain free gait using locked brace without crutches ○ No effusion ○ Knee flexion to 90 degrees and full extension ○ Straight leg raise without extension lag

PHASE 2- 4-8 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> • Increase ROM • Establish normal gait with unlocked brace
PRECAUTIONS	<ul style="list-style-type: none"> ○ Gradually wean crutches starting at 4 weeks ○ Unlock brace for ambulation at 3 weeks ○ Avoid post activity swelling ○ No impact activities ○ Can discontinue brace at 6 weeks postop if normal gait and quad control ○ Avoid open chain active knee extension
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue exercises from phase 1. Range of motion restrictions are in effect until 3 weeks postop, then able to progress as tolerated.
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> • Progress to SLRs without brace • Mini-squats (0-45 degrees) • Closed chain extension (leg press:0-45 degrees) • Toe raises • Hamstring and gastroc/soleus stretches • Proprioception <ul style="list-style-type: none"> ○ Mini-tramp standing ○ Stable and unstable platform (BAPS) with eyes open and closed ○ Standing ball throwing and catching
CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> • Stationary Bike (high seat, low tension) • Pool walking
PROGRESSION	<ul style="list-style-type: none"> • Normal gait

CRITERIA	<ul style="list-style-type: none"> • Full range of motion • Sufficient strength and proprioception to initiate functional activities
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PHASE 3- 8-12 weeks postop

REHAB GOALS	<ul style="list-style-type: none"> • Improve confidence in the knee • Protect the patellofemoral joint • Progress with strength, power, and proprioception
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling Avoid unprotected single leg stance activities
RANGE OF MOTION EXERCISES	Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> • Hamstring curls • Mini-squats and leg press to 60 degrees • Step-up, start 2 inches and increase to 8 inches • Continue to work on proprioception and balance (lateral slide board, ball throwing and catching on unstable surface)
CARDIOVASCULAR EXERCISE	<ul style="list-style-type: none"> • StairMaster, elliptical trainer, cross-country ski machine, lap swimming • Stationary bike, increase resistance • Treadmill walking
PROGRESSION CRITERIA	<ul style="list-style-type: none"> • Full, pain-free range of motion • No patellofemoral irritation • Sufficient strength and proprioception to progress to recreational activities

PHASE 4- 12+ weeks

REHAB GOALS	Return to unrestricted activity
PRECAUTIONS	Post-activity soreness should resolve within 24 hours Avoid post activity swelling
RANGE OF MOTION EXERCISES	Continue with flexibility exercises
SUGGESTED	<ul style="list-style-type: none"> • Advance with closed chain exercises

<p>THERAPEUTIC EXERCISES</p>	<ul style="list-style-type: none"> • Begin to incorporate cutting drills into agility training • Advance heights with plyometric conditioning • Sports specific drills (start a 25% on speed and advance as tolerated) • Incorporate single leg activities as strength, control and balance progress
<p>CARDIOVASCULAR EXERCISE</p>	<ul style="list-style-type: none"> • Begin pool jogging and progress to running on land
<p>RETURN TO SPORT/WORK CRITERIA</p>	<ul style="list-style-type: none"> ○ Dynamic neuromuscular control with multi-plane activities, without pain or swelling ○ Full range of motion ○ Hamstring and quadriceps strength 90% of contralateral side ○ No patellofemoral symptoms