DMC
Sports Medicine

Rehabilitation protocol
Medial Patellofemoral Ligament (MPFL) Reconstruction

PATIENT INFORMATION

BEFORE YOUR SURGERY:

Most patients will be discharged home the day of surgery. You will follow-up in clinic 7-10 days after your procedure.

DAY OF SURGERY:

Your arthroscopy showed (circle):

1. Torn meniscus cartilage
2. Arthritis / damaged articular (joint) cartilage (circle location)
    - PF
    - MFC
    - MTP
    - LFC
    - LTP
3. Plica
4. Loose Body
5. Abnormal tracking of the patella
6. Unstable patella

This was treated by (circle):

(a) Trimming torn meniscus
(b) Repair of torn meniscus
(c) Shaving of arthritis / damaged joint cartilage
(d) Removing plica
(e) Removing loose body
(f) Tightening/Repair of medial patellofemoral ligament and capsule
(g) Reconstructing medial patellofemoral ligament

AFTER YOUR SURGERY:

Immediately after your surgery you may not feel pain; this is because your knee may have been injected with a local anesthetic. You also may have a femoral and/or sciatic nerve block. Several hours after the surgery the anesthetic will wear off and you will begin to feel pain. A prescription for pain medication has been provided and should be filled. You may use ibuprofen, aspirin or Tylenol in place of this but most patients require a stronger medication during the first 24 to 48 hours. Apply an ice bag to the knee to relieve the pain and minimize the swelling. Your leg will be placed in a postoperative brace while in the operating room. If a diagnostic arthroscopy was performed, you will have two small arthroscopic incisions; one on the inside of your knee and one on the outside. These two incisions are closed with a black suture. This will be removed at your first post operative visit. If you have a medial patellofemoral ligament repair or reconstruction, you will have a larger longitudinal incision on the inside of your knee. This incision is usually closed with a clear dissolving suture underneath the skin. You will have steri-strips placed over you incisions to maintain the integrity of the skin closure. Leave these in place. These will fall off on their own.

Forty-eight hours after the procedure you may remove the dressings. DO NOT REMOVE THE STERI-STRIPS. You may shower, pat the area dry and place bandaids over the sites where there are no steri strips.

FIRST TWO WEEKS FOLLOWING DISCHARGE FROM THE HOSPITAL:

You need to continue to wear the brace when walking; always wear the brace with straps tightened when walking. You can weight bear as tolerated, but your knee should be locked in extension. You should continue to use your crutches when walking. Continue to wear the compressive dressing (TED stocking) on your leg until you are completely out of the brace (6 weeks).

Keep the incisions dry for the first 2 days following your surgery. After that, you may shower and wash the wounds with soap and water. Cover the wound with bandaids or pads for the first 7-10 days following the surgery or as long as there is drainage from the wounds. If you notice signs of infection, such as redness or pus drainage, please call the office. Do not take a bath, swim or use a hot tub until you talk to your surgeon.

To keep your leg elevated at night, place some pillows or a rolled up blanket under your ankle and foot. **Do not place anything behind the knee. As much as you work on bending your knee, it is also important to work on making the leg straight.**

It is also very important that you take 1 aspirin, regular strength (325mg) enteric coated (not Tylenol) twice a day for 4-6 weeks following the surgery to help prevent a blood clot in the leg.

	0-2 weeks	3-4 weeks	5-6 weeks
Brace	Wear at all times locked in extension **Except** -- may unlock when sitting -- may remove for exercise	Continue to use long brace locked in extension.	D/C brace at end of 6 weeks
Crutches	Always for walking	Discontinue	Discontinue
TEDS	Wear on operated leg	Continue to use	Discontinue
Aspirin	One enteric coated or buffered aspirin twice a day (2/day)	Continue aspirin	Discontinue

The goals of the first two weeks are:

1. Maintain full extension of the knee
2. Decrease swelling
3. Regain muscle tone of the leg

At about one week following the surgery, you will return to the office to have the sutures removed. You may also start walking without the crutches, but you must still wear the knee brace locked in extension for any standing or walking activities. You can remove or unlock the brace when sitting.

Maintenance of full extension is crucial. At this time you will advance your exercise program. Formal physical therapy visits typically will not start until 1-2 weeks after the surgery.

DRIVING

1. Right leg operated on:
    a. No driving for at least 3 weeks after surgery
    b. At 3 weeks you can unlock the brace to drive if:
        i. You have satisfactory ROM
        ii. You can straight-leg raise out of the brace
        iii. You have satisfactory muscle strength
        iv. You are not taking any painkillers

2. Left leg operation on:
    a. Automatic transmission:
        i. No driving for 2 weeks
        ii. At 2 weeks you can drive if you have met the above criteria

REHABILITATION GUIDELINES

Phase I: Weeks 1-6

Goals:

- Protect fixation and surrounding soft tissues
- Control inflammatory process
- Regain active quadriceps and VMO control
- Minimize adverse effects of immobilization through CPM and heel slides in the allowed ROM
- Full knee extension
- Patient education regarding the rehabilitation process, independent with HMP

Range of motion:

- 0-2 weeks: 0°-30° of flexion
- 2-4 weeks: 0°-60° of flexion
- 4-6 weeks: 0°-90° of flexion

Brace:

- 0-6 weeks: locked in full extension for ambulation; locked in full extension for sleeping

Weight Bearing:

- WBAT with knee locked in extension x 6 weeks

Therapeutic Exercises:

- Quad sets and isometric adduction with biofeedback/electrical stim for VMO (no ES for 6 weeks with proximal realignment)
- Heel slides 0°-60° for proximal realignment, 0°-90° for distal realignment
- CPM for 2 hours, twice daily, from 0°-60°. Advance as tolerated to max 90°
- NWB calf and hamstring stretching
- SLR x 4 in brace locked in extension (can be done standing)
- Resisted ankle theraband x 4 directions
- Patellar mobilization when tolerated with respect to pain
- Aquatic therapy (if available) at 3-4 weeks with emphasis on gait

Phase II: Weeks 6-8

Criteria for progression to phase 2

- Good quad control
- 90° flexion
- No active signs of inflammation

Goals:

- Increase flexion ROM
- Avoid overstressing fixation
- Increase quad and VMO control for restoration of normal patellar tracking
- Independent with HMP

Weight Bearing:

- WBAT with 2 crutches

Brace:

- Discontinue use for sleeping, unlock for ambulation when good quad control established, as allowed by physician

Therapeutic Exercises:

- Continue exercises, with progression toward full flexion with heel slides
- Progress to WB calf stretches
- D/C CPM if knee flexion at least 90°
- Continue Aquatic therapy
- Balance/proprioception exercises: SLB, BAPS, etc.
- Stationary bike, low resistance, high seat
- Wall slides progressing to mini-squats, 0°-45°

Phase III: 8 weeks – 4 months

Criteria for progression to Phase 3

- Good quad tone and no extension lag with SLR
- Non-antalgic gait pattern
- Good dynamic patellar control with no evidence of lateral tracking or instability

Weight Bearing:

- D/C crutches when the following criteria are met:
    - No extension lag with SLR
    - Full extension
    - Non-antalgic gait pattern (may use one crutch or can until gait is normalized)

Therapeutic Exercises:

- Step ups
- Stationary bike , moderate resistance
- Four way hip in standing
- Leg press 0°-45°
- Swimming, stairmaster for endurance
- Toe raises
- Hamstring curls
- Treadmill with emphasis on normalization of gait
- Continue proprioception exercises
- Continue flexibility exercises for calf, hamstring, add ITB and quads as indicated

Phase IV: 4-6 months

Criteria for Progression to Phase 4

- Good to normal quad strength
- No evidence of patellar instability
- No soft tissue complaints
- Clearance from physician to begin more concentrated sport specific CKC activities
- Resume full or partial activity

Goals:

- Normal quad strength
- Functional strength and proprioception 85% of the uninvolved side as determined by sport specific functional testing
- Return to appropriate activity level
- Independent with final progressive HMP

Therapeutic Exercises:

- Functional progression of CKC sport specific activities

Return to Sport:

- 4 – 6 months