

## **MPFL Reconstruction – Rehabilitation Protocol**

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The following is a protocol for post-operative patients following Medial Patellofemoral Ligament Reconstruction. The primary goal of this protocol is to protect the repair while steadily progressing towards and ultimately achieving pre-injury level of activity. Please note this protocol is a guideline. This protocol is aggressive with ROM and activation of the quadriceps muscle due to the likelihood of stiffness and quadriceps weakness with this procedure.

### **PHASE I: 0-2 WEEKS POST-OPERATIVE**

#### **GOALS:**

- Pain / effusion control
- No extensor lag

#### **AMBULATION AND BRACE USE:**

##### **Dressing**

- POD 1: Debulk dressing, TED Hose in place
- POD 2: Change dressing, keep wound covered, continue TED Hose
- POD 7-10: Sutures out, D/C TED Hose when effusion resolved

##### **Brace**

- Days 1-7: Locked in extension
- Weeks 1-2: Locked at 0-20 degrees

##### **Crutches**

- Weight bearing as tolerated (WBAT) (D/C when gait is normal)

#### **EXERCISES:**

AROM, AAROM 0-20 degrees

Patellar mobilisation (teach patient)

Calf pumping

Passive extension with heel on bolster or prone hangs

Electrical stimulation in full extension with quad sets and SLR

Quad sets, Co-contractions quads / HS

Straight leg raise (SLR) x 4 on mat, in brace (parallel bars if poor quad control)

Double leg heel raises

Gentle Hamstring stretching

Ice pack with knee in full extension after exercise

### **PHASE II: 2-4 WEEKS POST-OPERATIVE**

#### **GOALS:**

- Normal gait
- AROM 0-60 degrees

#### **AMBULATION AND BRACE USE:**

##### **Brace**

- Weeks 2-3: 0-45 degrees
- Weeks 3-4: 0-60 degrees

#### **EXERCISES:**

Continue appropriate previous exercises

Scar massage when incision healed

AAROM, AROM 0-60 degrees

SLR x 4 on mat, without brace – no resistance Single leg heel raises

#### Stretches

- Hamstring, hip flexors, ITB

#### **PHASE III: 4-6 WEEKS POST-OPERATIVE GOALS:**

- ROM 0-90 degrees
- No effusion

#### AMBULATION AND BRACE USE:

##### Brace

- Weeks 4-5: 0-75 degrees
- Weeks 5-6: 0-90 degrees

#### EXERCISES:

Continue appropriate previous exercises

AROM, AAROM 0-90 degrees

Standing SLR x 4 with light weight at ankle

Weight shifts, Mini squats

Short arc quads with light weight as tolerated

Total Gym

- Mini squats (level 3-5)
- No flexion > 45 degrees
- Passive flexion to 90 degrees (push up with opposite leg)

Leg press 0-45 degrees with light resistance

Hamstring curls 0-45 degrees

- Carpet drags or rolling stool (closed chain)

Proprioception ex

- Double leg BAPS Stationary bike for ROM

Pool therapy

#### **PHASE IV: 6-9 WEEKS POST-OPERATIVE GOALS: Full AROM**

#### AMBULATION AND BRACE USE:

##### Brace

- Weeks 6-7: 0-105 degrees
- Weeks 7-9: 0-120 degrees

#### EXERCISES:

Continue appropriate previous exercises

PROM, AAROM, AROM through full range

Wall squats

- No knee flexion past 45 degrees Standing SLR x 4 with Theraband bilaterally Forward, lateral and retro step downs

- No knee flexion past 45 degrees (small step) Proprioceptive ex

- Single leg BAPS, ball toss, and body blade

Hamstring curls through full range

- Carpet drag or rolling stool (closed chain)

Stationary bike

- Progressive resistance and time Elliptical trainer

Treadmill

- Forwards and backwards walking

#### **PHASE V: 9-12 WEEKS POST-OPERATIVE**

#### GOALS:

Walk 2 miles at 15 min/mile pace

#### AMBULATION AND BRACE USE:

D/C brace

#### EXERCISES:

Continue appropriate previous exercises with progressive resistance

PROM, AAROM, AROM to regain full motion Hamstring curl weight machine

Knee extension weight machine

Hip weight machine x 4 bilaterally

Forward, lateral and retro step downs

- Medium to large step  
Treadmill
- Walking progression program

**PHASE VI: 12+ WEEKS**

May begin treadmill jogging intervals

Progress to light agility and functional training exercises as tolerated

Return to Sport Criteria:

1. Full knee ROM
2. No pain
3. Good Quad contraction
4. Strength at 90% of the opposite side
5. Hop test 90% of opposite side

**This protocol is designed to be administered by a licensed physical therapist and/or certified athletic trainer. Please do not hesitate to contact our office should you have any questions concerning the rehabilitation process.**

Video Link (cadaver): <https://youtu.be/hdHebZ1gySE>

UPDATED Dr Simon Hutabarat (03/03/2021)