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## Physical Therapy Protocol: MPFL Reconstruction

### Philosophy:

Patellar realignment via MPFL reconstruction is a difficult task to accomplish surgically, and therefore a commitment to post-operative rehabilitation is necessary to achieve a desirable outcome. The surgical approaches vary by surgeon and even location, but the principles of therapy outlined here are generally accepted. A strong, pain-free knee with functional range-of-motion only comes about through an anatomic reconstruction of patellar tracking with aggressive (but appropriate) physical therapy performed with the therapist and at home.

### *Phase I, surgery to 6 weeks*

#### **OSMS appointments:**

- Medical appointments at 2 and 6 weeks
- Films are taken to assess tunnels/implanted hardware
- Physical therapy will begin as directed by your physician and as indicated on your physical therapy order

#### **Rehabilitation Goals:**

- Protection of the post-surgical limb
- Reduce swelling
- Control pain
- Restore leg control and normalize gait

#### **Precautions:**

- Brace locked in extension for ambulation & sleeping x 2 weeks
- ROM limitations as below
- May unlock brace while sitting
- Avoid active extension

#### **Range-of-Motion Exercises:**

- Locked brace in extension x 2 weeks
- 0-30 allowed x 2 weeks, then
- 0-60 allowed x 2 weeks, then unlimited ROM allowed (while maintaining full extension)

#### **Suggested Therapeutic Exercises:**

- Quadriceps sets
- SLRs with brace on for hip strength
- Ankle isotonic with bands



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- Begin pool walking at 4 weeks

**Cardiovascular Exercises:**

- Upper body circuit training or upper body ergometer

**Progression Criteria:**

- Patient may progress to phase II after 6 weeks if they have safe gait with brace unlocked
- No effusion
- 0-90 Range of motion

***Phase II, (after Phase I criteria met, usually at 6-12 weeks)***

**OSMS appointments:**

- Medical appointments at 6 & 12 weeks
- Physical therapy appointments continue at once or twice weekly

**Rehabilitation Goals:**

- Progressive squat program
- Initiate step-down program
- Leg press, lunges
- Single leg standing control
- No effusion
- Short arc quad control and no pain with steps and partial squats
- Good quadriceps control
- Full ROM
- Improve hip & core strength, balance & proprioception

**Precautions:**

- Avoid post-activity swelling
- Avoid closed chain exercises on land past 90
- No running

**Suggested Therapeutic Exercises:**

- Continue pool work
- Gait drills
- Functional single plane closed chain movements
- Agility exercises (sport cord)
- Balance and proprioceptive exercise
- Single leg balance board

**Cardiovascular Exercises:**

- Upper body circuit training or upper body ergometer



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- Swimming with flutter kick (no breaststroke)
- Stair master
- Water walking
- Stationary bike
- Versaclimber/NordicTrack

**Progression Criteria:**

- Patient may progress to phase III after 2 weeks if they have met the above stated goals & have normal gait on level surfaces
- Good leg control without extensor lag, pain or apprehension
- Single leg balance with 30 flexion greater than 20 seconds

***Phase III, (after Phase II criteria met, usually after 12 weeks)***

**OSMS appointments:**

- Medical appointment at 12 weeks
- Physical therapy appointments fade to every 10-14 days until cleared

**Rehabilitation Goals:**

- Good eccentric and concentric neuromuscular control
- Multiplane limb control
- Return to work/sports (including impact)

**Precautions:**

- Heat before exercise, ice after
- Post-activity soreness should resolve within 24 hours

**Suggested Therapeutic Exercises:**

- Begin forward treadmill running program when 8" step down satisfactory
- Impact control exercises beginning 2 feet-2 feet, then 1 foot to other, and then 1 foot to same
- Movement control exercise beginning with low velocity, single planar & progressing to higher velocity, multi planar
- Sport specific balance and proprioceptive drills
- Plyometric program
- Hip and core strengthening
- Return to sport is MD directed, generally >22 weeks