MPFL Repair/Reconstruction Rehab Protocol

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PHASE I: SURGERY TO 6 WEEKS POST-OP

- Appointments:
  - Clinic visit: 10-14 days post-op
  - Physical therapy: begin 7-10 days following surgery with 1-2 visits per week
- Precautions:
  - Weight bear as tolerated with crutches while in knee brace (TROM)
  - Wean crutches as tolerated
  - ROM limits for exercises:
    - Week 0-1: 0-45
    - Week 1-2: 0-90
    - Week 2-4: 0-advance ROM as tolerated
    - Weeks 4-6: full ROM as tolerated
  - ROM limits for ambulation:
    - Week 0-1: locked in extension
    - Week 1-2: locked in extension
    - Week 2-4: locked in extension
    - Weeks 4-6: unlocked to 30 degrees
- Rehab goals:
  - Eliminate swelling
  - Restore leg control
  - Normalize gait
- Range of Motion exercises:
  - 0-90 degree of knee flexion for passive and active assisted range of motion
- Suggested exercises:
  - Quadriceps sets
  - Four way leg lifts with brace on in supine position for hip strengthening
  - Ankle pumps
  - Ankle isotonics with exercise bands
- Progression criteria:
  - 6 weeks post-surgery

PHASE II: BEGINS ONCE PHASE I CRITERIA IS MET, USUALLY STARTS APPROX.. 6 WEEKS POST-OP

- Appointments:
  - Typically 1-2 times per week

- Precautions:
  - Avoid over stressing fixation: begin movement control and gentle strengthening with closed chain movements in a shallow are of motion and by using un-weighting
  - Avoid post activity swelling
- Rehab goals:
  - Single leg stand control
  - Good control and no pain with short arc functional movements, including steps and partial squats
  - Good quad control
- Suggested exercises:
  - Progress through passive, active and active assisted to full ROM
  - Continue squats and leg press
  - Advance to step downs, lunges, side lunges (in brace) and slide board (in brace)
  - Stationary bike
  - Advanced ankle/hip strengthening.
  - Core maintenance program for abdomen/lumbar
- Progression criteria:
  - Normal gait on level surfaces
  - Good leg control without extensor lag, pain or apprehension
  - Single leg balance greater than 15 seconds
  - At least 12 weeks post-surgery

PHASE III: BEGIN AFTER MEETING PHASE II CRITERIA, USUALLY 12-14 WEEKS POST-SURGERY

- Appointments:
  - Physical therapy 1-2 times per week
- Precautions:
  - Avoid closed chain exercises on land past 90° of knee flexion to avoid over-stressing the repaired tissues and increased patellofemoral forces
  - Avoid post-activity swelling
- Rehab goals:
  - Full ROM
  - No swelling
  - Improve quadriceps, proximal hip and core strength
  - Improve balance and proprioception
- Suggested exercises:
  - Continue ROM exercises
  - Stationary bike
  - Closed chain strengthening begin with single plane progress to multi-place
  - Single leg press
  - Balance and proprioception exercises: single leg stand, balance board
  - Hip and core strengthening
  - Initiate low amplitude agility drills in the sagittal place- avoid frontal and transverse initially because of potential for dynamic valgus

- Progression criteria:
  - Full ROM
  - No swelling
  - No patellar apprehension
  - Single leg balance with 30° of knee flexion greater than 15 seconds
  - Good control and no paint with squats and lunges

PHASE IV: BEGIN AFTER MEETING PHASE II CRITERIA, USUALLY 16-18 WEEKS POST-SURGERY

- Appointments:
  - Physical therapy one time every 1-2 weeks
- Precautions:
  - Post activity soreness should resolve within 24 hours
  - Avoid post activity swelling
- Rehab goals:
  - Good eccentric and concentric multi-place dynamic neuromuscular control (including impact) to allow for return to work/sports
- Suggested exercises:
  - Impact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to the other and then 1 foot to the same foot.
  - Movement control exercises beginning with low velocity, single plane activities and progressing to higher velocity, multi-plane activities.
  - Progression to multi-planar agility drills with progressive increase in velocity and amplitude.
  - Sport/work specific balance and proprioceptive drills.
  - Hip and core strengthening
  - Stretching for patient specific muscle imbalances
- Progression criteria:
  - Return to sport/work criteria (Dr. Heikes clearance)
    - Functional movement exam required
    - dynamic neuromuscular control with multi-plane activities and without paint, instability or swelling