Physical Therapy Medial Patellofemoral Ligament Reconstruction
Post-Operative Therapy Plan

Date of Surgery: ______________

Surgeon: ______________

Date of Injury: ______________

WB Precautions: WBAT in brace

Brace: Locked in extension x 4 wks, unlocked 0-30 at 4 wks, 0-60 at 5 wks, 0-90 at 6 wks, 6wks+ wean out of brace

Next Follow Up with MD/PA: ______________
Precautions: ROM limited from 0-90 in NWB position x 4 wks, 0-120 x 4-6 wks
Hold bike x 4 wks

Functional Strength Testing (Start week 8): For functional strength testing use the Lower Quarter Y Balance Test. This test compares side to side reaching in 3 different directions and also compares the reaches to limb length. Passing the LQYBT is not expected until 3-4 months post op but can be safely used as an exercise to improve strength, proprioception, mobility and coordination starting at week 8. Lower Quarter Y Balance Test Score Sheet.

Plyometric progression to include Running (Week 12 to Discharge)
- No running until double and single leg hopping are shown to be tolerated well and with good form
- Passes Running Readiness Scale
  o DL hopping x 1 min @160 bpm
  o Plank on elbows x 1 min
  o Step ups x 30s each leg @ 160 bpm
  o Single leg squat x30s each leg @ 80 bpm
  o Wall sit with ball x 1 min – quads remain parallel

Double leg hop cycle x 2 weeks
Single leg hop cycle x 2 weeks
Begin running progression
Teach jump prep (countermovement drills)
Higher intensity plyometric exercises (incorporate practice of hop testing)
Implementation of sport specific multi-directional and reactive drills

Return to Play (RTP)/Discharge Time Lines and Criteria:
- Functional Testing – minimum of 4 months with physician approval (discharge potential if non-athlete)
  - FMS > 14 with no 0’s or 1’s
  - Lower Quarter Y Balance Test:
    o < 5 cm asymmetry in all 3 reaches
    o > 94% Composite Score
  - Hop Testing: ≥ 95% Limb Symmetry Index
    o Single Hop for distance
    o Triple Hop for distance
    o Triple Crossover Hop for distance
  - Closed Kinetic Chain Dorsiflexion
    o >35 degrees bilaterally
    o < 5 degrees of asymmetry

- Return to Sport Testing for Athletes – minimum of 4 months with physician approval
  Meet above standards in fatigued state. Recommend
  Borg scale rate of perceived exertion at 15. Fatigue patient in movements similar to sports demands

Other functional testing can be included: tuck jump assessment, isokinetic testing, single leg squat, etc.
Ideally patients should achieve the following milestones before advancing to the next stage.

Please print below chart and use check list as progress note for MD.

<table>
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<tr>
<th>Intervention</th>
<th>Milestones</th>
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| **Week 0-4**  Ice/modalities to decrease pain and inflammation. Compression and elevation for swelling. Patellar mobilization (avoid lateral glide). NMES/BFR highly encouraged for quad activation with QS, SLR (in brace, 3-way, avoid adduction). Ankle pumps, glute sets, trunk stability exercises. WBAT with brace locked in extension. | __Full hyperextension  
___AROM/PROM= 0-90 (non-weightbearing)  
___Active quadriceps contraction  
___No quad lag with SLR in full hyperextension  
(can DC brace with SLR when no lag) |
| **Weeks 4-6**  Increase flexion ROM to 120 deg.  
Open brace 0-30 deg at 4 wks, increase by 30 deg each week, to 90 deg by 6 wks if good quad control.  
Begin bike, no resistance.  
Progress trunk stability exercises, add adduction to SLR (4-way), calf raises, SAQ, LAQ, standing TKE, mini-squats in brace (to 30 deg).  
Hamstring and calf stretching as indicated. | __ROM: 0-120  
___No quad lag with SLR in full hyperextension |
| **Week 6-8**  Aquatic therapy/walk/jog when wounds heal (start at chest level).  
Increase flexion ROM to full.  
Wean from brace if good quad control.  
Bilateral CKC exercises increase depth of mini-squats/leg press to 45 deg.  
Proprioception exercises.  
Continue to progress trunk stability exercises. | __Continue to progress ROM to full  
___Restore normal gait |
| **Week 8-12**  Progress strengthening & proprioception to unilateral as tolerated.  
Progress bilateral CKC exercises to 60 deg.  
Continue to progress trunk stability exercises.  
Initiate DL/SL hop cycles when strength appropriate. | __Full painfree knee ROM  
___Flexion ROM gradually increased  
___Bilateral squat without pain to 60 degrees  
___LQYBT initiated as exercise |
| **Week 12-16**  Continue unilateral strength and plyometric progression.  
Run progression can start if single and double leg hopping is tolerated and with safe form and passes running readiness scale.  
Implement low intensity sports specific drills.  
Initiate low speed cutting/agility drills. | __Pass LQYBT  
___CKC Dorsiflexion >35 and <5 deg asymmetry  
___Pass Running Readiness Scale |
| **Week 16+**  Higher level plyometrics, initiate more aggressive sport specific drills, evaluate form under fatigue.  
Progress appropriate gym strengthening program. Minimum timeframe for return to sport testing based on physician approval. | __Hop Testing LSI ≥ 95%  
___Return to unrestricted activity  
___Hop Testing LSI ≥ 95% after fatigue protocol (Borg Scale 15 or greater) |

When patient is discharged and returned to play, Fu with the surgeon to be scheduled. Prior to follow up, perform functional testing. Can be scheduled with St. Luke’s Rehab by calling 208-385-3720.