

Medial Patellofemoral Ligament Reconstruction/ Repair
Saint Louis University – SSM Health Physical Therapy Orthopedic Residency



SLUCare[®]
Physician Group

Physician Referral for Physical Therapy

Patient Name:

Date:

Referring DX: S/P MPFL Reconstruction/repair

Recommended Frequency: 1 – 2 visits/ wk

Total Duration: ~6 months

These guidelines, treatments, and milestones have been established to assist in guiding rehabilitation based on the most current available evidence. They are not intended to be substitute for sound clinical judgement with consideration of the individual contextual features of the patient and the demands of various functions/sports.

Additional recommendations with additional procedure of Tibial tubercle osteotomy:

For patients who are s/p MPLF-R **with** Tibial Tubercle Osteotomy (TTO) the following changes are recommended:

- PWB for the first 4 weeks and progress to WBAT at week 4¹
- Brace locked in extension for first 6 weeks¹²
- AAROM can be initiated immediately¹
- ROM milestone: 0-90 deg by week 6²

Weeks 0 – 6 (approximately)

Recommend PT follow up during Week 1, Week 3 and Week 6

Milestone to advance to next phase:

MD appointment for follow-up

AROM 0-90 degrees^{3,4}

Recommendations:

Initial HEP prescription including: 4-way SLR with brace in full extension, PROM/ AAROM knee flexion, calf pumps, quad sets, heel slides

Instruction in total body conditioning program including: LE flexibility, core/ hip/ ankle strengthening, Non-operative limb conditioning

WBAT with brace locked in extension²⁻⁶ (unless otherwise instructed by your surgeon)

Administer patient reported outcome measures (ie: SANE Score⁷, PSFS⁸, IDKC⁹)

Weeks 4 – 6 (approximately)

Recommend weekly PT follow up

Milestones to unlock brace/ proceed to next phase:

20 repetitions 4-way SLR without extension lag

Single leg squat to supported high surface with adequate quad control and no knee valgus

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Single leg stance >30 sec without deviation of hip drop, knee valgus, or overpronation

Recommendations:

Begin CKC strength (ex: mini Squats, heel raises, progressive step up/down, SL squats, leg press, lunges)^{4,5,10}

Ensure appropriate alignment during these activities avoiding contributory movements into knee valgus

Progress OKC strength (ex: resisted SLR with brace off if no extensor lag, leg extensions without weight, hamstring PRE)^{4,5,10}

Balance and proprioception (ex: SLB, uneven surface, eyes closed, head turns)

Stationary biking

Weeks 7 – 9

Recommend weekly PT follow up

Milestone to discontinue brace/ proceed to next phase:

Restoration of normalized gait mechanics¹¹

Re-assessment of SANE Score⁷

Improved score for PSFS by 2-3 points⁸

Reciprocal ascend and descend 8-inch step with rails

Knee AROM 0-120 degrees¹²

Recommendations:

Advance CKC strengthening (ex: 8 inch step up/ down, advances SL squats, Y balance training, resisted side stepping, sport cord)

Advance balance and proprioception (ex: wobble boards, dyna-disc, ball tosses)

Weeks 10-22

Recommend weekly to bi-weekly PT follow up

Milestone to progress to next phase:

No signs and symptoms of patellar instability

Full AROM

Good control and no pain with squats and lunges

Dynamically stabilize knee with good eccentric control with SL activities

Recommendations:

Once brace is discontinued, stabilizing brace can be utilized by the patient PRN

Progress CV fitness program (Biking outside, brisk walking)

Begin return to jogging/ running (weeks 10-16)^{2,4,5,10,13}

Begin Agility (Week 12-20)^{4,10}

Begin plyometrics (week 13-24)^{4,5,10}

Begin Sports Specific training (weeks 14-19)^{4,10}

Return to Sports Participation (Week 17-28):

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Adapted from: 2013 ISAKOS Sports Medicine Committee Return-to-Play Criteria, London 2013¹⁴

- No concerns of knee pain or knee instability
- Full/ near full AROM of knee
- No knee effusion
- Acceptable control with dynamic activities (Star Excursion Balance Test)
- Limb Symmetry Index >85% on hop tests
- Full Strength on MMT assessment of LE
- Athlete demonstrates a psychological readiness to return to sport (eg SANE score > 80/100)

For questions regarding the patient's medical care, new orders, or insurance questions:
please contact your physician's office directly

For additional questions, comments, or concerns regarding the implementation of these physical therapy guidelines, please contact Chris Sebelki, PT, DPT, PhD, OCS, Director of the SLU – SSM Health Physical Therapy Residency @ 314 977 8724 OR chris.sebelki@health.slu.edu

Please respond to our anonymous survey regarding these guidelines to assist in improving patient care and advocacy. https://slu.az1.qualtrics.com/jfe/form/SV_bpX7Z9AaVTzGblj



Appendices of referenced assessments

Soreness Rules <small>Adapted from Fees et al. 1998¹⁵</small>	
Criterion	Action
1. Soreness during warm-up that continues	2 days off, drop down 1 step
2. Soreness during warm-up that goes away	Stay at step that led to soreness
3. Soreness during warm-up that goes away from redevelops during session	2 days off, drop down 1 step
4. Soreness the day after lifting (not muscle soreness)	1 day off, do not advance program to the next step
5. No soreness	Advance 1 step per week or as instructed by healthcare professional

References:

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