



Dr. Roger Chams MPFL Reconstruction Post-Op Protocol

This protocol is intended to be a general guideline. The physician staff may advance, delay, or alter this protocol based on individual patient status. If so, this should be done by direct communication with the therapist, or in writing on the therapy referral form provided to the patient or therapist.

The interventions listed in this protocol are not intended to be all-inclusive. The clinician should consider individual patient status and tailor the treatment program based on clinical decision-making within the scope of the post-operative restrictions.

Guidelines for Pre-Op Physical Therapy

Patient will receive instruction from Dr. Chams or one of his physician extenders on post-operative expectations, post-op Day One exercises, and use of crutches or another assistive device for WBAT ambulation. If deemed necessary at that time, the patient may be referred for one pre-op PT visit to receive gait training, review post-op exercises, and discuss post-op expectations.

Guidelines for Post-Op Physical Therapy Visits

- Therapy begins on **Day One** post-op in the outpatient clinic.
- Patient is typically seen in clinic 2x/week. May be increased if flexion ROM is poor.
- Continue PT 2x/week until about 16 weeks post-op, at which time patient may be seen 1x/week or every other week as appropriate based on patient status and HEP compliance, until functional goals are achieved.

Guidelines for Wound Care

- Original steri-strips should be left in place until stitch removal. They can be reinforced with more steri-strips if needed.
- On Day One post-op, remove bulky post-op cotton and gauze dressings. Place 2x2 gauze pads and occlusive dressing over wound sites. Change dressings as needed. Do not allow wound area to become wet.
- Instruct patient to wrap knee in “press ‘n seal” plastic wrap for showering until 3-5 days after stitches are removed (make sure wounds are fully healed before being exposed to water).

Guidelines for Ambulation and Hinged Knee Brace

- Unless otherwise specified, patient will be WBAT immediately post-op with hinged (TROM) locked in extension.
- TROM knee brace will be issued at surgical center. Brace should be re-adjusted for correct fit by therapist at first PT visit post-op.
- Brace to be worn and locked at 0 degrees extension with all ADL's for first 4 weeks. Brace may removed for bathing and exercises.
- Anytime at Week 4 or beyond, unlock TROM brace, but **ONLY WHEN** patient has good quad control in weightbearing and no quad lag with SLR. Wean off unlocked brace for 1-2 weeks before transition to Breg PTO brace.
- When ready to discharge TROM, Patient should be issued Breg PTO brace to be used throughout rehab for weightbearing activity.

Day One Post-Op

Weightbearing status: WBAT locked in extension

ROM Goal: 30 degrees flexion, full extension

- See above for dressing and wound care instructions and brace guidelines.
- Review post-op exercises and edema control (ice/elevation): ankle pumps, quad sets, glute sets, SLR, full knee ext (heel prop if necessary).
- Review WBAT gait with crutches or other assistive device
- Apply NMES to quad for muscle recruitment (focus on VMO)
- If quad recruitment is poor: Request home NMES unit for home use — at least 20 minutes, twice daily
- Cryotherapy using GameReady machine or cold pack

Day One - End of Week 1: Patient seen 2x/week.

Weightbearing status: WBAT locked in extension

ROM Guidelines: 0-45 degrees flexion

- Teach self-ROM for knee flexion to be progressed according to above parameters.
- Continue use of NMES unit
- Elastic-resisted ankle strengthening
- Passive hamstring, adductor, and calf stretches in supine
- Note: if patient having difficulty achieving knee ROM outlined, patient should be seen in clinic up to 3x/week

Week 2 - End of Week 6: Patient seen 2x/week.

Weightbearing status: WBAT locked in extension until Week 4 post-op, then fully unlock TROM hinge IF patient has good quad control in weightbearing. Wean off TROM over 1-2 weeks and transition to Breg PTO brace when patient demonstrates adequate proprioceptive control in weightbearing.

ROM Guidelines:

Week 2 - 4: 0 - 90 degrees flexion

Week 5 - 6: 0 - 120 degrees flexion

- Continue above exercises, with focus on increasing PROM knee flexion and manual therapy as indicated
- Optional: Add in-clinic personalized blood flow restriction therapy if appropriate. Begin BFR in NWB; progress to use with weightbearing exercises throughout early rehab protocol.
- Sidelying adduction and abduction
- Standing weight shifts and standing balance activities
- Standing closed chain TKE's
- Heel raises
- Stationery bike: starting with partial revolutions for self-assisted AAROM

Week 7 - End of Week 11: Patient seen 2x/week

ROM Goal: full knee flexion equal to contralateral side

- Continue above exercises
- Progressive core strengthening: Bird dog, prone planks, side planks, unilateral bridges, Pilates-style strength/flexibility (use Reformer if available)
- Bridge progressions
- Lateral band walk
- Lunges
- Leg press (start at low weight)
- Squats
- Step ups, progressing to step downs
- RDL progressing to single leg RDL variations
- Balance drills with perturbations/unstable surfaces
- At Week 8, begin light cardio conditioning program — walking, add resistance to stationery bike.

Week 12 - End of Week 16: Patient seen 2x/week

Precaution: No plyometrics or running until Week 16. Squat and lunge instruction should emphasize no forward translation of the knee to avoid excessive stress on anterior knee.

- Progress cardio activity: elliptical, stair climber, flutter kick swimming
- Progress intensity of closed-chain flexion activities
- Single leg eccentric training: step-downs, dips
- Advanced gait drills: tandem walk, backward walk, crossovers, proprioceptive ladder drills (no plyometrics yet)
- Gym machines: hamstring curls, hip abductor/adductor machines
- Week 16: Begin bilateral FWB plyometrics including lateral shuffles and bounding. Progressing to single leg plyometrics as tolerated.
- Week 16: If available, perform Y Balance Test to obtain baseline for comparison through remainder of rehab.

Week 17 - Discharge (around Week 24): Patient seen as indicated

- Cardio conditioning: elliptical machine, bike with resistance, swimming (flutter kick)
- Address non-operative LE strength/coordination to avoid asymmetries
- With MD clearance, begin progressive jogging program on flat, even surfaces when patient can perform single-leg eccentric squat pain-free. Begin jogging every other day, with progressive distance and frequency as tolerated.
- Progress plyometric activity — advanced ladder drills, single leg plyo progression.
- Perform Phase IV and sport-specific drills: progressive running, cutting, plyometrics, pivoting, deceleration, drop jumps, and perturbation training. Focus on increasing speed, power, and proprioceptive control as indicated.
- Assess for return to sport using standardized return-to-play testing protocol (FMS, Y Balance Test, facility-specific protocol, etc.). Testing should include Single Leg Hop (Goal = 90% of non-operative LE), Drop Jump Test, Single Leg Squat, and Triple Hop Test.
- Discharge when patient has achieved full ROM, full strength, and unrestricted neuromuscular control throughout kinetic chain to facilitate safe return to activity/sport.

Updated November 2022.