

TIBIAL TUBERCLE OSTEOTOMY ± MPFL RECONSTRUCTION

Post-Operative Physical Therapy Protocol



SCAN FOR THE
ONLINE VERSION



Stanford
MEDICINE

Dear Colleague,

I appreciate your partnership in the rehabilitation of this very special patient of ours. I have instructed the patient that you will be using this protocol. My belief is that the biggest predictor of success is what the patient does at home and consistently. **They should view you not just as a therapist but as a highly educated and skilled teacher** and the patient *must* be an active participant in the rehab process.

To facilitate this, I have included a copy of the rehab protocols I would like the patient to focus on at each time point in the rehab process. Please assist me by encouraging and teaching our mutual patient their home exercises as well.

With your help and the active participation of our patient, I know we can have another fantastic knee.

Please do not hesitate to reach out directly to me and my team with any questions at any time.

Respectfully,



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	WEEKS 0-2	WEEKS 3-6	WEEKS 7-8	WEEKS 9-16	MONTHS 4+
Weight bearing	Foot-flat <i>Crutches, brace locked</i>	Foot-flat <i>Crutches</i>	Advance 25-50%/wk <i>Full by 8 weeks</i>	Full	Full
Range of motion	Passive extension only <i>0-45°; active flexion ok</i>	Passive extension only <i>0-90°; active flexion ok</i>	PROM → AROM <i>Unrestricted; full by 8 wk</i>	Full	Full
Brace	Set 0-45° <i>At all times except hygiene</i>	On <i>May remove at night</i>	D/C <i>As tolerated</i>	None	None
Strengthening	Quad sets, heel slides <i>Patellar mobs, ankle pumps</i>	SLR in locked brace <i>Core, hip, glutes</i>	SLR, bike <i>Closed chain quads, balance</i>	Closed chain quads <i>Flexibility, core, glutes</i>	Single-leg balance <i>Transition to HEP</i>
Impact and sport	None	None	Stationary bike	Advance bike after 12 wk <i>Elliptical, swim at 14 wk</i>	Pool/Alter-G → jogging <i>Sport-specific once cleared</i>

As tolerated means pain during exercise no more than 2/10 above baseline. Avoid pushing into pain.

WEEKS 0-2

- **Foot-flat weight bearing with crutches with brace locked in extension.**
- **NO active knee extension; PASSIVE EXTENSION ONLY from 0 to 45° with brace on.**
- Active knee flexion and hamstrings okay.
- Brace set from 0 to 45° and worn at all times except for personal hygiene.
- Heel slides, quad sets, patellar mobilizations, ankle pumps.

WEEKS 3-6

- Continue foot-flat weight bearing and exercises from weeks 0 to 2.
- **NO active knee extension; PASSIVE EXTENSION ONLY may be increased from 0 to 90°.**
- Active knee flexion and hamstrings okay.
- Straight leg raise in brace with brace locked in full extension.
- Focus on regaining full extension; brace may be removed at night.
- Begin floor-based core, hip, and gluteal work; advance quad sets and patellar mobilizations.

WEEKS 7–8

- Discontinue brace and crutches as tolerated.
- **Advance weight bearing (25 to 50% per week) with goal of full weight bearing by 8 weeks.**
- Advance PROM → AAROM → AROM unrestricted with goal of full ROM by 8 weeks.
- Stationary bike and straight leg raises; advance core, gluteal, and hip work.
- Begin closed chain quads, progress balance.

WEEKS 9–16

- Progress flexibility and strengthening; continue functional balance, core, and gluteal program.
- Progress closed chain quad program.
- Advance bike work after 12 weeks; elliptical and swimming allowed at 14 weeks.

MONTHS 4+

- Impact activity progression allowed (Alter-G or pool running → normal jogging).
- Maximize single leg dynamic and static balance.
- Gluteal, pelvic stability, core, and closed chain quadriceps program with transition to HEP.
- Sport-specific training once cleared by MD.

CRITERIA TO RETURN TO SPORT

- Full ROM compared with the uninvolved side.
- No effusion.
- Normal gait and pain-free activities of daily living.
- Quadriceps strength at least 90% of the uninvolved side.

Week-by-Week Progression

EXERCISE	1	2	3	4 (1 mo)	5	6	7	8 (2 mo)	9	10	12 (3 mo)	16	20	24 (6 mo)
Initial Exercises														
Footflat weight bearing with crutches														
Advance WB 25 to 50% per week														
Brace at all times (locked for walking)														
Passive extension only; active flexion ok														
ROM 0 to 45°														
ROM 0 to 90°														
Heel slides, quad sets, mobs, ankle pumps														
SLR in brace locked in extension														
Advanced Exercises														
Floor-based core, hip, gluteal work														
PROM → AAROM → AROM unrestricted														
Closed chain quads, balance														
Flexibility and strengthening progression														
Single-leg dynamic and static balance														
Cardiovascular Exercises														
Stationary bike														
Elliptical and swimming														
Agility Exercises														
Alter-G or pool running, then jogging														
High-Level Activities														
Sport-specific training once cleared														
Return to sport, usually 6 to 8 months														

This protocol is a general guideline and does not replace the clinical judgment of the treating therapist and surgeon. Please contact our office with any questions.