

MEDIAL OPENING WEDGE HIGH TIBIAL OSTEOTOMY

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 2-6	WEEKS 6-8	WEEKS 8-16	WEEKS 16+
Weight bearing	NWB <i>Crutches</i>	NWB <i>Crutches</i>	25% to 50% <i>Full by 8 weeks</i>	Full	Full
Range of motion	PROM, AAROM 0-90° <i>Goal 0-90°</i>	0-90° <i>Goal 0-125°</i>	Full, advance <i>As tolerated</i>	Full	Full
Brace	Locked straight <i>On for sleeping</i>	Locked straight <i>Walking</i>	D/C with <i>Quad control</i>	None	None
Strengthening	Quad sets <i>Ankle pumps</i>	Core, hip, glutes; SLR <i>Patellar mobs</i>	Closed chain quads <i>Balance, core</i>	Flexibility, strength <i>Functional balance</i>	Functional training
Impact and sport	None	None	Stationary bike	Elliptical, swim <i>At 12 weeks</i>	Impact after 20 wks <i>Sport 6-8 months</i>

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

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.
- Single-leg hop tests at least 90% of the uninvolved side.
- Around 6 to 8 months after surgery.

WEEKS 0–6

- **NWB for 6 weeks with crutches.**
- Brace locked in extension. May remove brace for hygiene (on for sleeping for the first 2 weeks).
- **ROM 0 to 90° (passive, active assist).**
- Quad sets, ankle pumps.
- At 2 weeks: begin floor-based core, hip, and glute work, patellar mobilization, and SLR; progress non-weight-bearing flexibility; modalities.

WEEKS 6–8

- **Begin WBAT progression, advancing partial weight bearing (25% then 50%) starting at 6 weeks; advance to full WBAT by 8 weeks.**
- Discontinue crutches when gait is normalized and non-antalgic; discontinue brace once quad control is adequate.
- Full, unlimited active and passive ROM; advance as tolerated.
- Advance closed chain quads; progress balance; core, pelvic, and stability work.
- Begin stationary bike at 6 weeks. Advance SLR and floor-based hip and core exercise.

WEEKS 8–16

- Progress flexibility and strengthening; progress functional balance, core, and glutes program.
- Advance bike; add elliptical at 12 weeks as tolerated. Swimming OK at 12 weeks.

WEEKS 16+

- **Progress to functional training, including impact activity after 20 weeks when cleared by MD.**
- **Return to full sport around 6 to 8 months**, once strength and hop testing are at 90% or better and Dr. Tummala clears the patient.

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:															
ROM Goals	0-90°		0-125°			Progress to full									
Flexion/extension, heel slides/seated															
Patella/Tendon mobilization															
Quad Series	0° ISOs, SLR			60° ISO				70-30° arc-resisted		Full arc resisted					
Hamstring series/strength progression	ISOs, hip based			Knee-based resisted arc											
Sit and reach for hamstrings															
Ankle Pumps															
Crutch weaning	NWB						Begin WBAT progress to full by 8 weeks								
Heel prop knee extension stretch															
SLR (w/ brace until quad control restored)															
Toe and heel raises															
Balance series															
Weight-bearing Strength Exercises:	1	2	3	4	5	6	7	8	9	10	12	16	20	24	
Double knee bends	NWB														
Leg Bridges (2 → 1 leg)															
Begin cord exercises															
Leg press (ISO → reps, 2 → 1 leg)															
Reverse lunge- static hold															
Dead Lift (2 → 1 leg)															
Sports Test exercises															
Cardiovascular Exercises:	1	2	3	4	5	6	7	8	9	10	12	16	20	24	
Bike with both legs-no resistance	NWB														
Bike with both legs- resistance															
Aqua jogging															
Treadmill-walking (no limp)															
Swimming with fins-light flutter kick															
Elliptical Trainer															
Stair stepper															
*Cardio Exercises	Must tolerate daily walking with no limp & no significant increase in pain/swelling prior to initiating WB cardio (walk, elliptical, stepper)														
Agility Exercises:	1	2	3	4	5	6	7	8	9	10	12	16	20	24	
Running Progression	NWB														
Initial-Single Plane															
Advance-Multi Directional															
Functional Sports Test															
High Level Activities:	1	2	3	4	5	6	7	8	9	10	12	16	20	24	
Golf Progression	NWB														
Outdoor biking, hiking, running															
Return to Full Sport at 6-8 months post-op															

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.