Baylor Scott & White
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Tibial Tubercle Osteotomy with MPFL Reconstruction and MACI Patella

REHABILITATION PROTOCOL

PHASE	RANGE OF MOTION	BRACE / WEIGHT BEARING	THERAPEUTIC EXERCISE
Phase I **0–6 weeks** GOAL TO ADVANCE *Full extension; flexion 90° by week 6; leg raise without lag*	Weeks 0-2: passive 0-40° only. Weeks 2-6: increase gradually to 90°. CPM if prescribed	Brace locked straight at all times except exercise and CPM. Heel-touch weight bearing with crutches for 6 weeks*	Quad sets, straight-leg raises in brace, ankle pumps, kneecap mobilization (up/down only); floor-based hip and core work
Phase II **6–12 weeks** GOAL TO ADVANCE *Full weight bearing; normal gait; flexion ≥120°*	Progress to full. Avoid resisted knee straightening and loaded bending between 40° and 70°†	Wean crutches to full weight bearing by 8 weeks once x-ray shows healing; discontinue brace with normal gait	Strengthening in the 0-40° arc: wall slides, mini-squats, step-ups, bridges; bike from 6 weeks (no resistance); single-leg balance
Phase III **3–6 months** GOAL TO ADVANCE *Squat to 40° with control; no apprehension*	Full	Full; optional kneecap-stabilizing sleeve	Closed-chain strengthening within 0-40°, elliptical, swimming (flutter kick), treadmill walking
Phase IV **6–9 months** GOAL TO ADVANCE *No pain or swelling with activity*	Full; strengthening now allowed to 40-70°	Full	Deeper squats and single-leg work, low-impact recreation
Phase V **9–12+ months** GOAL TO ADVANCE *Strength and hop tests ≥90%*	Full without discomfort	—	Running at 9-12 months, then plyometrics and agility; return to sport at about 12 months**

NOTES

*Weight bearing is protected until the tibial tubercle osteotomy heals; early overloading can fracture the tibia

†This range presses the new patellar cartilage hardest into the joint

**If approved by physician

This protocol is a guideline. Your surgeon may adjust it based on your surgery and progress.
Call the office for fever, wound drainage, calf pain or swelling, or new numbness or tingling.

Questions: 469.800.7200
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