

Tibial Tubercle Osteotomy / MPFL (updated 9/12/24)

Postoperative Rehabilitation Protocol

Dr. Jeffrey Witty, M.D.

Starting Immediately:

- compressive soft dressing
- hinged knee brace or immobilizer locked in full extension
- CPM can be used per patient preference but not required
- Commercial cryo/compression devices are suggested to facilitate swelling reduction, pain control, and decreased pain medication requirements
- E – stim to quad

	Weightbearing	Brace	ROM	Exercise
Phase I Week 0 - 6	Heel touch only	Locked in full extension for sleeping and ambulation.	Week 0 – 4: PROM 0 – 90 Week 4 – 6: PROM 0 – 110	Week 0 – 2: Quad sets/isometrics Patella mobs Ankle AROM Calf pumps No SLR! Week 2- 6: Add side-lying hip
Phase II Week 6 - 8	Progressive WBAT. Goal full WB by week 8. Progress 25% weekly starting week 6 if cleared by M.D. (requires radiographs documenting TTO healing)	Immobilizer/brace discontinued when quad control improves. MD approval required before crutches discontinued (once radiographic healing of tuberosity noted.)	Progress ROM as tolerated - start AAROM and if pain free progress AROM	May progress strengthening as tolerated once cleared by M.D. and radiographs Weeks 6 – 8: Start closed chain, normalize gait, eccentric quads, hamstrings as tolerated Add 4 way hip, glutes
Phase III Week 8 - 12	WBAT	None	As tolerated	Progress closed chain Progress hamstrings Add balance and proprioception Continue 4 way hip. Core. Glutes
Phase IV	WBAT	None	As tolerated	Continue above phases

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Week 12 - 24				Add walking lunges Progress hips, planks, bridges Month 3: Progress jogging in straight line Month 4: - can start figure 8 runs - plyometrics
Phase V After 6 months	WBAT	None	As Tolerated	Progress to sports as tolerated. Functional assessments

Adapted from:
 Pagenstert et al Arthroscopy 2012
 O'Neill et al JBJS 1997
 Reagan Clin Sport Med 2014
 Magnussen et al Arthroscopy 2014
 Duchman et al Clin Sport Med 2014
 Tjoumakaris et al AJSM 2010
 Noyes' Knee Disorders Text