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***Tibial Tubercle Osteotomy
Rehab Protocol***

	WEIGHT BEARING	BRACE	ROM	EXERCISES
PHASE I 0-2 weeks	<ul style="list-style-type: none"> • TTWB with brace locked and crutches 	<ul style="list-style-type: none"> • Locked in full extension for ambulation and sleeping • May remove for hygiene, exercises, & CPM 	<ul style="list-style-type: none"> • 0-90° as tolerated STRESS EARLY EXTENSION	<ul style="list-style-type: none"> • Quad sets, straight leg raises in brace locked at 0°, e-stim, biofeedback, hamstring isometrics, heel slides, gastroc stretch, ankle pumps
PHASE II 2-6 weeks	<ul style="list-style-type: none"> • TTWB with brace locked and crutches 	<ul style="list-style-type: none"> • Locked to ambulate • May remove for sleep • Progressively open to 0-90° for sedentary positions 	<ul style="list-style-type: none"> • Goal: at least 90° by week 4, 120° by week 6 • PROM: 90° flexion at each therapy session • Maintain full extension 	<ul style="list-style-type: none"> • Progress Phase I exercises • Progress NWB ROM • Begin floor-based core, hip, and gluteal work • Patellar mobilization • Advance quad sets
PHASE III 6-8 weeks	<ul style="list-style-type: none"> • WBAT • Wean off crutches as gait normalizes (normal gait and adequate quad control) 	<ul style="list-style-type: none"> • Discontinue brace when able to SLR without lag 	<ul style="list-style-type: none"> • Full AROM & PROM 	<ul style="list-style-type: none"> • Progress phase II exercises • Advance closed-chain quads • Progress balance • Core/pelvic and stability work • Begin stationary bike <ul style="list-style-type: none"> - Start with high seat and progress to normal height when able, resistance as tolerated
PHASE IV 8-16 weeks	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • Progress flexibility & strengthening • Progress functional balance • Progress core and gluteal work • 10 Weeks: leg extensions ok to begin, keep resistance proximal • 12 Weeks: May begin outdoor cycling, elliptical, and swimming • 14 Weeks: treadmill walking forward and retro, single leg stands, chair/wall squats (tibia perpendicular to floor), unilateral step-ups (start 2" then progress to normal)

	WEIGHT BEARING	BRACE	ROM	EXERCISES
PHASE V 16-20 weeks	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • Maximize single leg dynamic and static balance • Gluteal/pelvic-stability/core + closed-chain quad program & HEP independent • Criteria For Jogging <ul style="list-style-type: none"> - At least 16 weeks post-op - Pain < 3/10 - Within 2° normal knee extension and 125° knee flexion - At least 1 minute of single-leg squats - MD or PT approval
Phase VI 20-24 Weeks	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • Progress running as tolerated • Lateral movement supervised PT • Isokinetic exercises • Criteria for plyometrics and sport-specific drills <ul style="list-style-type: none"> - At least 20 weeks post-op - Pain < 2/10 - Quad & Ham strength ≥ 80% normal; ≥50% H/Q ratio for females - At least 2 minutes of resisted SL squats - ≤ 5 on LESS - MD or PT approval
Phase VII 24-32 Weeks	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Full 	<ul style="list-style-type: none"> • Progress as above • Single-leg hops testing • Interval sprints workouts • Unpredictable cutting & contact • Criteria for return to play <ul style="list-style-type: none"> - Pain < 2/10 - Quad & Ham strength ≥ 90% normal; ≥60% H/Q ratio for females - At least 3 minutes of resisted SL squats - 90% normal on all single-leg hop tests - 95% normal on figure of 7, 5-10-5 pro-agility, & S-L vertical jump - MD approval

- Do NOT change bandages unless instructed by physician
- Encourage home exercise program
- For any questions or concerns please contact Dr. Tauberg's office (see above)