

## HIGH TIBIAL OSTEOTOMY OR DISTAL FEMORAL OSTEOTOMY PT PROTOCOL

	<b>BRACE INSTRUCTIONS AND RESTRICTIONS</b>	<b>RANGE OF MOTION GOALS</b>	<b>PT EXERCISES/NOTES</b>
<b>PHASE 1</b> <b>First 2 Weeks (0-2)</b> 1-2 Sessions/week Begin after 5-7 days	<b>-Hinge Knee brace x 6 weeks</b> (may remove for shower/hygiene) -Brace locked in extension with ambulation and sleeping at 0 degrees -Crutches for assisted ambulation <b>-Touch down weight bearing</b>	-Begin PROM 0 to 90 degrees and AAROM 30 to 90 degrees (Minimum goal of 90 degrees knee flexion <b>by 2 weeks</b> )	-Begin patellar mobilization, pain/edema control, passive/active ROM exercises -Strengthening to include ankle pumps, quad sets/straight leg raise (brace locked at 0 degrees) -Consider NMES as needed -No hamstring isometrics x 6 weeks
<b>PHASE 2</b> <b>Next 4 Weeks (2-6)</b> 1-2 Sessions/week	<b>-Hinge Knee brace x 6 weeks</b> (may remove for shower/hygiene) -Brace unlocked for 0-120 degrees ROM -Crutches for assisted ambulation <b>-Touch down weight bearing</b>	-Continue to advance PROM/AAROM 0 to 120 degrees <b>by 6 weeks</b>	-Continue phase 1 exercises and add knee extension stretches, heel raises -Side lying hip/core strengthening -Consider NMES and add Blood Flow Restriction as needed -Closed chain strengthening to begin 0 to 45 degrees -Gentle sit and reach hamstrings (without hyperextension)

<p><b>PHASE 3</b>  <b>Next 4 Weeks (6-10)</b>  2 Sessions/week</p>	<p>-Advance 25% weight each week to <b>full weight bearing</b> as tolerated  -Unlock brace with ambulation <b>at 7 weeks</b>  -Discontinue crutches as able <b>at 10 weeks</b>  -Discontinue brace <b>at 10 weeks</b></p>	<p>-Continue to advance to full PROM/AAROM and advance AROM 0-120 degrees</p>	<p>-Continue phase 2 exercises and add proprioception exercises, balance/core/hip/glutes,  -Daily stretching including prone quadriceps, hamstrings, and calf  -Stationary bike to increase ROM <b>at 8 weeks</b></p>
<p><b>PHASE 4</b>  <b>Next 6 Weeks (10-16)</b>  1-2 Sessions/week</p>		<p>-Continue to advance PROM/AAROM/ AROM to reach full ROM</p>	<p>-Continue phase 3 exercises and add closed chain exercises, hamstring work, lunges, seated leg press 0 to 90 degrees, mini squats 0 to 45 degrees  -Stationary bike add resistance as tolerated</p>
<p><b>PHASE 5</b>  <b>16 Weeks+</b>  Sessions weekly frequency to be determined</p>			<p>-Continue phase 4 exercises and add step-up/step-down, single leg wall slides, single leg squat to chair  -Progress proprioceptive activities  -Consider ACE <b>STRENGTH after 5 months</b></p>

<p><b>PHASE 6</b>  <b>24 Weeks+</b>  Sessions weekly  frequency to be  determined</p>			<ul style="list-style-type: none"> <li>-Continue phase 5 exercises</li> <li>-May begin plyometric exercises <b>at 24 weeks</b> (low intensity vertical and lateral hopping to begin - initially both feet, progress to one foot; advance volume as tolerated)</li> <li>-Advance lateral movements including step, shuffle hopping, cariocas, sprinting, backward running, zig-zag running, figure-of-eight running, carioca running, shuttle run and sport specific drills provided 70% strength on Limb Symmetry Index <b>at 8 months</b></li> <li>-Return to sporting activity <b>after 12 months</b> per protocol and once clear by MD</li> </ul>
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This protocol is intended for the purposes of guiding post-surgical or post-injury rehabilitation exercises and goals. These guidelines may be interpreted by a certified physical or occupation therapist and tailored to meet patient specific goals and expectations. Other specific modifications may be made by Dr. Butterfield depending on adjuvant surgical procedures, surgical findings, or rehabilitation progress.

Please fax initial physical therapy assessment and progress notes to Dr. Butterfield at 763-786-3320. You may direct questions regarding this protocol or patient progress to our office at 763-786-9543 or email at [MatthewButterfield@tcomn.com](mailto:MatthewButterfield@tcomn.com)