

This rehabilitation program is designed to return the individual to their full activities as quickly and safely as possible following a Modified Brostrom procedure with an internal brace. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following a Modified Brostrom procedure with an internal brace.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

- **Weight bearing Progression: (With internal bracing system)**
  - Weeks 0 - 2: Non-weight bearing
  - Weeks 2 - 4: WBAT with walking boot
  - Weeks 4 + : Full weight bearing with walking boot progressing to ankle stabilizing orthoses

Phase	Suggested Interventions	Goals/Milestones for Progression
<b>Phase I</b>  Weeks 0 – 4	Immobilization: Cast or walking boot WB Status: NWB weeks 0 – 2, WBAT weeks 2 – 4 in walking boot Precautions: Avoid passive or active ankle ROM  Therapy: 0-2 weeks: NWB in boot <ul style="list-style-type: none"> <li>• Hip, knee and core strengthening</li> <li>• Toe curls, toe extension, toe spreads</li> <li>• Cryotherapy compression with JOBST</li> <li>• Ankle PF/DF ROM to tolerance-focus on slow controlled movement</li> <li>• Bike in boot</li> </ul> 2-4 weeks: WBAT in boot <ul style="list-style-type: none"> <li>• Transfer and gait training with optimal AD</li> <li>• Sub-max., pain-free isometrics in neutral (all planes)</li> </ul>	Goals of Phase: <ol style="list-style-type: none"> <li>1. Edema control/reduction</li> <li>2. Protection of surgical site</li> <li>3. Independence with safe mobility</li> </ol> Criteria to Advance to Next Phase: <ol style="list-style-type: none"> <li>1. Reduction in pain and edema</li> </ol>

	<ul style="list-style-type: none"> <li>• Low level double proprioception- weight shifting, reaching, perturbations</li> </ul>	
<p><b>Phase II</b></p> <p>Weeks 4 - 8</p>	<p>WB Status: Full weight bearing; start first in walking boot, and then progress to semi-rigid ankle stirrup orthotic.</p> <p>Precautions: Avoid mobilizing talocrural and subtalar joints.</p> <p>Therapy:</p> <p>4-6 weeks:</p> <ul style="list-style-type: none"> <li>• Multi-angle ankle sub-max isometric strengthening in all planes</li> <li>• AROM and AAROM for all planes of ankle mobility</li> <li>• Continue proprioception activities involving double leg stance</li> <li>• Gait training progressing to full weight bearing, weaning from AD, progressing to ankle brace</li> <li>• NuStep, Anti-gravity treadmill</li> <li>• Continue with hip, knee and core strengthening</li> <li>• Light soft tissue mobilization as indicated</li> <li>• Metatarsal joint mobilizations as indicated, avoid mobilizing talocrural and subtalar joints</li> </ul> <p>6-8 weeks:</p> <ul style="list-style-type: none"> <li>• Progress strengthening with bands for dorsiflexion, plantarflexion, eversion, inversion</li> <li>• Progress proprioception activities from double leg to single leg stance</li> </ul>	<p>Goals of Phase:</p> <ol style="list-style-type: none"> <li>1. Protection of the repair</li> <li>2. Normalized gait pattern with walking boot</li> <li>3. Prevention of scar adhesions</li> </ol> <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> <li>1. Normalized gait in ankle brace</li> <li>2. Pain-free eversion against gravity</li> </ol>

<p><b>Phase III</b></p> <p>Weeks 8 – 12</p>	<p>Precautions: No plyometrics until week 11</p> <p>Therapy:</p> <ul style="list-style-type: none"> <li>• Ankle AROM in all planes with alphabet, circles, BAPS board, etc.</li> <li>• Standing BAPS board</li> <li>• Gastrocnemius/soleus stretching</li> <li>• Advance proprioception and balance to unilateral stance, varied surface, perturbations and duel task.</li> <li>• Gait drills: forward march, backward march, side stepping, backward stepping</li> <li>• Bike, elliptical</li> <li>• Soft tissue mobilization and grade I-III joint mobilizations as indicated to talocrural and subtalar joints</li> <li>• Closed chain strength strengthening-focusing on retraining functional movements including squatting, hinging, bridging, lunging, heel raises.</li> </ul> <p>Plyometric Progression (Week 11):</p> <ul style="list-style-type: none"> <li>• Horizontal leg press jumps</li> <li>• Bilateral jumps: Vertical jumps in place, up to and down from 4" and 6" blocks</li> <li>• Depth jumps up and down from 8" and 12" block</li> <li>• Lateral jumping over line, up and over 4" block</li> <li>• Jumps in series with multiple planes</li> </ul> <p>Progress as above for single leg jumps.</p> <p>*Delay plyometric progression until patient can complete 10 repetitions pain-free.</p>	<p>Goals of Phase:</p> <ol style="list-style-type: none"> <li>1. Full ankle ROM</li> <li>2. 5/5 strength in all ankle muscle groups</li> <li>3. Normalized, pain-free gait on even/uneven surfaces and stairs (with or without ankle orthoses as needed)</li> <li>4. No apprehension with high level activity or direction changes</li> </ol> <p>Criteria to Advance to Next Phase:</p> <ol style="list-style-type: none"> <li>1. Full ankle strength on manual muscle testing</li> <li>2. Single leg balance equal to contralateral side</li> </ol>
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<p><b>Phase IV</b></p> <p>Weeks 12 – 16</p>	<p>Precautions: Continue use of ankle brace during sports for 6 months for increased stability and proprioception</p> <p>Therapy:</p> <ul style="list-style-type: none"> <li>• Initiate jogging with progression to running (Alter-G as needed)</li> <li>• Jump rope</li> <li>• Proprioception, plyometric and change of direction drills starting in AP plane and progress to lateral movements and diagonals             <ul style="list-style-type: none"> <li>○ Retro jog, side shuffle, carioca, bounding, jog-sprint-jog, figure eights, 45-degree cuts, 90 degree cuts, single leg hop for distance, single leg hop for time</li> </ul> </li> <li>• Sport-specific movements</li> </ul>	<p>Goals of Phase:</p> <ol style="list-style-type: none"> <li>1. No apprehension with sport-specific drills and activities</li> <li>2. Stability with high velocity movements</li> </ol> <p>Return to Sport:</p> <ol style="list-style-type: none"> <li>1. May return to sport after receiving clearance by orthopedic surgeon along with physical therapist/athletic trainer.</li> </ol>
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