

## Ankle Fracture – Non-Operative

Phase	Restriction and Precaution	Physiotherapy intervention	Rehabilitation Goals
<b>Post-Operative</b>			
<b>IMMEDIATE POST INJURY (0-2 WEEKS)</b>	<ul style="list-style-type: none"> <li>- NWB, in cast boot.</li> <li>- Elevation of affected limb in supine “<i>Toes above the Nose</i>”.</li> </ul>	<ul style="list-style-type: none"> <li>- AROM of hip and knee</li> <li>- Strengthening of hips, knees and core while maintaining NWB status.</li> <li>- Education RE: use of gait aid, mobility, transfers, and stairs while maintaining WB status.</li> </ul>	<ul style="list-style-type: none"> <li>- Protect repair.</li> <li>- Control pain and swelling.</li> <li>- Minimize loss of hip and knee ROM and strength.</li> <li>- Minimize loss of core strength.</li> </ul>
<b>Criteria to Progress:</b> <ul style="list-style-type: none"> <li>- Follow-up appointment with surgeon.</li> <li>- Adequate pain control (&lt; 5/10).</li> </ul>			
<b>INTERMEDIATE POST INJURY (2-6 WEEKS)</b>	<ul style="list-style-type: none"> <li>- Gradual progression of WBAT in the cast boot.</li> <li>- Cast boot on at all times except when working on ankle and foot exercises.</li> <li>- Avoid post-exercise pain and swelling.</li> </ul>	<ul style="list-style-type: none"> <li>- Commence ankle and toe AROM.</li> <li>- Foot intrinsic strengthening.</li> <li>- Submaximal 4-way ankle isometrics (<u>light</u> static contractions of the muscles).</li> <li>- Continue with LE and core strengthening with cast boot on, WBAT.</li> <li>- Proprioception (joint position sense).</li> </ul>	<ul style="list-style-type: none"> <li>- Protect repair.</li> <li>- Control pain and swelling.</li> <li>- Improve proprioception.</li> <li>- Minimize loss of hip, knee and ankle ROM and strength.</li> <li>- Minimize loss of core strength.</li> <li>- Independence with home exercise program – to be performed daily.</li> </ul>
<b>Criteria to Progress:</b> <ul style="list-style-type: none"> <li>- Adequate pain control (&lt;3/10).</li> <li>- Minimal swelling (&lt; 1cm difference w/ figure 8 measurement).</li> </ul>			
<b>LATE POST-OP (6-12 WEEKS)</b>	<ul style="list-style-type: none"> <li>- Gradually wean out of the cast boot and transition into a regular shoe.</li> </ul>	<ul style="list-style-type: none"> <li>- Begin open and closed chain strengthening for the ankle.</li> <li>- Begin ankle stretching.</li> </ul>	<ul style="list-style-type: none"> <li>- Normalize gait.</li> <li>- Restore proprioception.</li> </ul>

	<ul style="list-style-type: none"> <li>- WBAT.</li> <li>- Avoid post-exercise pain and swelling.</li> </ul>	<ul style="list-style-type: none"> <li>- Foot and ankle mobilizations as appropriate.</li> <li>- Proprioception (joint position sense).</li> <li>- Gait retraining +/- a gait aid as needed.</li> <li>- Bilateral and unilateral balance exercises.</li> <li>- Core, hip and knee strengthening exercises.</li> <li>- Stationary cycling and other aerobic machines as tolerated.</li> <li>- Swimming/pool jogging</li> </ul>	<ul style="list-style-type: none"> <li>- Restore full ankle ROM</li> <li>- Begin controlled ankle strengthening.</li> </ul>
<b>Criteria to Progress:</b> <ul style="list-style-type: none"> <li>- No post-exercise pain and swelling.</li> <li>- Normalized gait pattern without gait aid</li> <li>- Adequate joint position sense (&lt; 5 degree error).</li> </ul>			
<b>TRANSITIONAL RETURN TO SPORT</b> <b>(12 -20 WEEKS)</b>	<ul style="list-style-type: none"> <li>- Avoid post-exercise pain and swelling.</li> </ul>	<ul style="list-style-type: none"> <li>- Core, hip, knee, ankle and foot strengthening exercises.</li> <li>- Progress balance and proprioception exercises.</li> <li>- Single leg progressions.</li> <li>- Forward and lateral lunges</li> <li>- Elliptical.</li> <li>- Stair climber.</li> <li>- Hop tests.</li> <li>- Beginner level plyometrics.</li> </ul>	<ul style="list-style-type: none"> <li>- Progress ankle and LE strengthening.</li> <li>- Normalize functional movements.</li> </ul>
<b>Criteria to Progress:</b> <ul style="list-style-type: none"> <li>- No post-exercise pain and swelling.</li> <li>- No pain or swelling with 30 minutes of fast paced walking.</li> <li>- Ankle ROM equal to unaffected.</li> <li>- &gt; 90% LSI (single hop test for distance and triple hop for distance)</li> </ul>			
<b>RETURN TO SPORT</b> <b>(20+ WEEKS)</b>		<ul style="list-style-type: none"> <li>- Interval walk/jog</li> <li>- Return to running program</li> <li>- Agility and plyometrics</li> </ul>	<ul style="list-style-type: none"> <li>- Continue strengthening and proprioceptive exercises</li> <li>- Initiate sport specific training</li> <li>- Progress to full return to sport</li> </ul>



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AROM- Active range of motion

WB – Weight bearing

LSI – Limb symmetry index

ROM – Range of Motion

NWB – Non weight bearing

WBAT – Weight bearing as tolerated

Standing calf raise progressions: **REPS**

- Bilateral standing heel raises (25% body weight on affected side)
- Bilateral standing heel raises (50% body weight on both sides)
- Bilateral standing heel raises (75% body weight on affected side)
- Bilateral standing heel raise → Unilateral lowering.
- Unilateral standing heel raises

Single leg progressions/variatioins:

- Single leg press
- Sliding board lunges (all directions)
- Step ups +/- march
- Lateral step ups
- Step downs
- Single leg wall slides
- Single leg squats

Beginner level plyometrics:

- 3x15 bilateral standing heel raises → Rebounding bilateral heel raises
- 3x15 unilateral heel raises → Rebounding unilateral heel raises

Good performance/tolerance with rebounding → Bilateral hopping in place → Unilateral hopping in place