

Ankle Fracture – Non-Operative

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



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



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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/variations:

- 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