

Rehabilitation Protocol for Lateral Ankle Sprain: Non-Operative Management

This protocol aims to assist clinicians in managing the non-operative treatment of lateral ankle sprains. It incorporates both a time-based approach, aligned with tissue healing, and a criterion-based approach. Interventions should be tailored to meet the specific needs of each patient, taking into account clinical evaluations and decision-making processes. The expected recovery timelines outlined in this guideline may differ based on the referring physician's preferences, the severity of ankle instability, the number of ligaments involved, additional impairments, or any complications.

The exercises and interventions recommended in this protocol are not exhaustive. Therapeutic activities should be selected and adjusted according to the patient's progress, at the clinician's discretion. If the patient has uncontrolled pain, or has any other concerning symptoms, it is important to contact the referring physician.

<p>Diagnosis Considerations</p>	<p><i>Lateral Ankle Sprain</i></p> <ul style="list-style-type: none"> • Mechanism of Injury • Degree of ecchymosis and edema • Tenderness to palpation over lateral ankle ligaments • Anterior drawer and reverse anterior drawer test • Ottawa ankle rule to rule out fracture
<p>Differential Diagnosis</p>	<ul style="list-style-type: none"> • Foot and ankle fracture • Syndesmotic injury • Osteochondral lesion • Talar bone contusion • Deltoid ligament sprain • Peroneal tendon strain • Achilles tendon strain • Midfoot sprain • Epiphyseal plate injuries

PHASE I: PROTECTION AND OPTIMAL LOADING (WEEKS 1-2 AFTER SURGERY)

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Decrease pain • Decrease edema • Improve weight bearing • Protect healing structures
<p>Brace</p>	<ul style="list-style-type: none"> • Brace or protective tape should be worn during weight bearing activities. • Immobilization is recommended for 10 days for severe ankle sprain.
<p>Intervention</p>	<p><i>Range of motion/Mobility</i></p> <ul style="list-style-type: none"> • Foot and ankle PROM • Ankle pumps • Ankle circles • Ankle alphabet • Seated heel raises • Seated toe raises • Towel crunches/toe curls • BAPS board

PHASE I: PROTECTION AND OPTIMAL LOADING

(WEEKS 1-2 AFTER SURGERY) CONTINUED

<p>Intervention</p>	<p><i>Manual therapy</i></p> <ul style="list-style-type: none"> • Grades I-II to talocrural, subtalar, and mid foot for pain control <p><i>Gait training</i></p> <ul style="list-style-type: none"> • Normalize stance time, weight bearing, and promote heel to toe gait pattern <p><i>Motor control/Balance</i></p> <ul style="list-style-type: none"> • Initiate Tandem or single leg balance on firm surface if non-painful • Ice, compression, elevation, NSAIDS (if appropriate)
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Ability to fully weight bear on involved lower extremity • Decreased pain • Minimal swelling

PHASE II: INTERMEDIATE/SUB-ACUTE

(WEEKS 3-6 AFTER SURGERY)

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Manage swelling • Full range of motion of foot and ankle • Safely progress strengthening • A normalized gait pattern on all surfaces (wean from boot/brace when healing is adequate) • Minimize the loss of strength in the upper extremities, core, hips, and knees • Gradually return to regular activities if ROM, strength, and gait pattern are sufficient
<p>Precautions</p>	<ul style="list-style-type: none"> • No joint mobilizations near fracture site or that require stabilizing over the fracture site
<p>Weight Bearing</p>	<ul style="list-style-type: none"> • Progress to FWB per surgeon • Wean boot per surgeon
<p>Additional Intervention *Continue with Phase I interventions</p>	<p><i>Range of motion/Mobility</i></p> <ul style="list-style-type: none"> • Knee to wall closed chain dorsiflexion mobilization • Gastroc stretch • Soleus stretch <p><i>Manual Therapy</i></p> <ul style="list-style-type: none"> • Grades I-IV to talocrural, subtalar and midfoot for pain control and mobility <p><i>Strengthening</i></p> <ul style="list-style-type: none"> • Resisted dorsiflexion, resisted eversion, resisted plantar flexion, resisted inversion • Double leg heel raises • Single leg heel raises • Standing toe raises • Open and closed chain knee, hip, and core strengthening <p><i>Motor control/Balance</i></p> <ul style="list-style-type: none"> • Tandem stance: Firm and unstable surface • Tandem walking • Single leg stance: Firm and unstable surface • Rocker board / Wobble board
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Non-antalgic gait pattern • Equal single leg stance time and quality bilaterally • Full ankle PROM and AROM • 5/5 ankle strength with MMT

PHASE III: LATE/CHRONIC
(WEEKS 7-10 AFTER SURGERY)

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Optimize strength • Optimize balance • Initiate plyometric activities • Initiate return to running
<p>Brace</p>	<ul style="list-style-type: none"> • Utilize lace up brace for functional activities as needed
<p>Additional Intervention *Continue with Phase I-II interventions</p>	<p><i>Strengthening</i></p> <ul style="list-style-type: none"> • Closed chain strengthening and endurance for entire lower extremity *Progress established strengthening exercises with increasing resistance and repetitions <p><i>Motor control/Balance</i></p> <ul style="list-style-type: none"> • Single leg multidirectional reach: Firm and unstable surface • Dual task balance exercises: Ball toss with decreased base of support or unstable surface <p><i>Plyometrics/Agility</i></p> <ul style="list-style-type: none"> • Double leg hopping • Lateral bounding • Initiate agility ladder drill
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • Able to perform 25 single leg heel raises or equal number compared to uninvolved side • 80% or better performance on involved lower extremity compared to contralateral side with Star balance / Y-balance excursion test compared to uninvolved side • Appropriate scores on patient reported outcome measure (e.g. Cumberland Ankle Instability Tool or FAAM)

PHASE IV: RETURN TO SPORT/FUNCTIONAL ACTIVITIES
(WEEKS 11-16 AFTER SURGERY)

<p>Rehabilitation Goals</p>	<ul style="list-style-type: none"> • Full strength of foot and ankle • Improve motor control with higher level activities • Return to normal activities
<p>Additional Intervention *Continue with Phase I-II interventions</p>	<p><i>Plyometric/Agility</i></p> <ul style="list-style-type: none"> • Single leg agility drills • Single leg hopping • Change in speed and change in direction drills <p><i>Return to sports/function</i></p> <ul style="list-style-type: none"> • Interval sports training • Return to running progression • Compound strengthening exercises
<p>Criteria to Progress</p>	<ul style="list-style-type: none"> • 90% or better performance on involved lower extremity on Star balance / Y-Balance excursion test • 90% or better performance on involved lower extremity on single leg hop for distance, triple hop for distance, 6m timed hop, and/or cross over hop for distance • Appropriate scores on patient reported outcome measure (e.g. Cumberland Ankle Instability Tool or FAAM) • No increase in pain or swelling with plyometric and return to sports activities

For further assistance or to schedule an appointment, please contact **iOrtho - The Orthopedic Institute** at **833-464-6784** or visit our website at **iorthomd.com** to text/email us. Our team is dedicated to providing personalized care and guidance throughout your rehabilitation journey.