



ANKLE PAIN (SPRAIN/STRAIN/TENDINITIS) NON-OPERATIVE REHABILITATION GUIDELINES

General notes:

All phases and exercises are to serve as guidelines. Progression through these guidelines should be based upon criteria and will vary depending on each individual patient. Exercise suggestions are merely suggestions, and are not appropriate for every patient.

Return to sport is based on input from team of providers (physician, physician assistant, athletic trainer and/or physical therapist) & appropriate testing.

The following factors should provoke communication with or referral back to the treating physician:

- Visible swelling longer than 2 weeks or new swelling lasting more than 48-72 hours
- Further loss of range of motion (ROM)
- Increased pain
- Pain with weight bearing longer than 1 week
- Inability to progress if pain exists

Phase I: Initial Phase

Taping / Bracing / Assistive Devices:

- Initiate taping / bracing / assistive devices as symptoms allow and/or indicated by provider

ROM (Range of motion):

- Progress with physical therapist & with a home exercise program (HEP) until functional ROM is achieved
 - Ankle pumps, clockwise/counterclockwise circles, alphabets

Therapeutic Exercises:

- Early emphasis on open chain (non weight-bearing exercises) to strengthen ankle and hip
 - Open chain ankle strengthening
 - Ankle isometric 4 way (dorsiflexion, plantarflexion, inversion, eversion) → Ankle theraband 4 way (dorsiflexion, plantarflexion, inversion, eversion)
 - Open chain hip strengthening
 - Sidelying hip alphabets, sidelying hip abduction, clamshells, fire hydrants
- Early emphasis on improving core strength
 - Planks, quadruped activities
- Stretching of tight muscle groups (hip flexors, quadriceps, hamstrings, gastrocnemius / soleus complex)

Manual therapy:

- Appropriate joint & soft tissue mobilizations as needed to ankle to address restrictions and create smooth and symmetric motion
 - May include talocrural joint mobilizations, subtalar mobilizations, soft tissue massage to ankle musculature

Cardio:

- Swimming & stationary bike as tolerated

Modalities:

- Cryotherapy (ice pack or ice massage) as needed

Progression to Phase II:

- Reduction or improvement in pain levels with daily activities
- Reduction in swelling
- Improving functional ROM of ankle



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Phase II: Intermediate Phase

Taping / Bracing / Assistive Devices:

- Continue with taping / bracing / assistive devices as symptoms allow and/or indicated by provider

ROM:

- Progress to full ROM

Therapeutic Exercises:

- Initiate closed chain (weight-bearing) ankle exercises when tolerated
 - Bilateral heel raises → eccentric heel raises → unilateral heel raises
- Progress core exercises with emphasis on hip strength (hip external rotation, hip abduction and hip extension)
 - Prone & sidelying planks in conjunction with lower extremity movements
- Progress both open & closed chain lower extremity strengthening exercises both concentrically & eccentrically
 - Squats, box step ups, wall sits, medial step downs
- Continue to stretch / lengthen tight muscle groups

Neuromuscular Re-education:

- Initiate single leg balance exercises with emphasis on neuromuscular control & proper movement patterns
 - Anterior / Lateral / Posterior reaching, steamboats, 3 way cone reach

Manual Therapy:

- Continue with appropriate joint & soft tissue mobilizations as needed to ankle to address restrictions and create smooth and symmetric motion

Cardio:

- Continue with swimming & stationary bike
- Initiate elliptical and/or straight-plane jogging when tolerated

Modalities:

- Cryotherapy (ice pack or ice massage) as needed

Progression to Phase III:

- *Good neuromuscular control with all closed chain lower extremity exercises*
- *Good tolerance to initiation of jogging in Phase II*

Phase III: Advanced Phase

Taping / Bracing / Assistive Devices:

- Continue with taping / bracing / assistive devices as symptoms allow and/or indicated by provider

Therapeutic Exercises:

- Patient to continue all core / hip / knee strengthening exercises with HEP (home exercise program)
- Continue all stretching

Neuromuscular Re-education:

- Continue to progress balance/proprioception exercises to include dynamic challenges
 - Challenge patient with perturbations and standing on various surfaces ie. Foam, BOSU while performing steamboats, bird dips, trampoline ball toss and RNT's



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Manual Therapy:

- Continue with appropriate joint & soft tissue mobilizations as needed

Cardio:

- Progress from straight plane jogging to running and sprinting when tolerated

Plyometrics:

- Initiate double-leg plyometric exercises with a focus on maintaining good form & mechanics
 - Ladder Drills, drop vertical jump, line hops
- Progress double leg → single leg when tolerated
 - Split lunge jumps, lateral bosu push offs, double leg & single leg broad jumps, lateral bounding

Modalities:

- Cryotherapy (ice pack or ice massage) as needed

Progression to Phase IV:

- *Symmetric neuromuscular control with all plyometrics initiated in Phase III*
- *Demonstration of understanding of HEP*

Phase IV: Return to Sport Phase

Taping / Bracing / Assistive Devices:

- Continue with taping / bracing / assistive devices as symptoms allow and/or indicated by provider

Therapeutic Exercises:

- Finalize independence with HEP

Cardio:

- Running
- Sprinting

Plyometrics:

- Sport-specific activities
 - Change of direction, cutting, pivoting (with a soccer ball, for example)

Modalities:

- Cryotherapy (ice pack or ice massage) as needed