

REHABILITATION PROTOCOL

Grade III Lateral Ankle Sprain

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GENERAL PRINCIPLES

This protocol for Grade III Lateral Ankle Sprain is designed to provide the rehabilitation professional with a general guideline for patient care with the AlterG Anti-Gravity Treadmill. As such, it should be stressed that this is only a protocol and should not be a substitute for professional clinical decision-making regarding a patient's progression. Progression should be individualized based upon each patient's specific needs, pain level, physical examination, functional progress, and presence of any complications.

FREQUENCY

2x week (Daily treatment may be beneficial for collegiate or professional athletes).

PRECAUTIONS AND CONTRAINDICATIONS

- Increasing pain in the foot or ankle
- Persistent edema/effusion
- Numbness or paresthesia to ankle, foot, toes

PHASE I (IMMEDIATE)

Week 1 - Week 3

Goals:

- Reduce edema & pain
- Protection of ligamentous structures

Treatment Options:

- Non-wt bearing X 3 wks
- Compression dressing 1st week with posterior splint followed by boot for weeks 2 and 3

Modalities:

- Rest
- Ice
- Ice Compression (Ex: Game Ready® or Cryo-Cuff®)
- Electrical stimulation
- Elevation

Manual Therapy:

- Gentle effleurage/retrograde massage
- Gentle dorsiflexion, NO Inversion or Eversion

Therapeutic Exercise:

Stationary bike

Gait Training:

- AlterG Anti-Gravity Treadmill
 - Walking with boot in AlterG @ 50% BW

PHASE II (EARLY POST-OPERATIVE PHASE) Week 4 - Week 6

Initiate outpatient Physical Therapy

PHASE II (EARLY POST-OPERATIVE PHASE) (cont.) Goals:

• Begin weight-bearing as tolerated (WBAT) in boot, with progression to out of boot

Treatment Options:

Modalities:

- Continue with ice compression, elevation, e-stim Manual Therapy:
- Begin passive ROM, with protected inversion
- Continue massage for soft-tissue restrictions

Therapeutic Exercise:

- Active ROM with Thera-band® or similar elastic tubing
- Begin proprioceptive re-training
- Gentle Closed-Kinetic Chain activities can begin, using AlterG first, then overground when patient tolerates Full Weightbearing
 - Squats
 - Step-Ups
 - Shuttle Leg Press
 - Steamboats

Gait Training:

- Progress to full weight bearing in the boot
- Discontinue the boot when painfree (usually 4-6 weeks)
- Use ankle brace/tape for outside activity
- AlterG Anti-Gravity Treadmill
 - Can weight bear in AlterG at 3 6 weeks at 50% 85% BW
 - Can initiate single-legged strengthening in AlterG
 - Can start ambulating without boot, 0° incline at 3 mph - 6 mph

PHASE III (INTERMEDIATE PHASE) Week 7 - Week 12

Goals:

- Painfree with activities of daily living
- Progress with sports and recreational activities (first linear and then lateral)
- Taping/bracing can be used during functional training, but therapeutic exercises should be performed without support

Treatment Options:

Modalities:

- Continue as above
- Can add pulsed ultrasound if adhesed capsule or posterior impingement is present

Manual Therapy:

- Improve ROM with advanced mobilization techniques
- Manual resistance to ankle through range, straight

Therapeutic Exercise:

Progress functional rehab, closed-kinetic strength, and proprioception

Incorporate plyometrics, agility exercises as appropriate.
 Can be performed initially in the AlterG, with progression back to overground (Sagittal plane first, then frontal plane, then multi-planar)

Gait Training:

- AlterG Anti-Gravity Treadmill
 - Progress single-legged strengthening in AlterG
 - Progress jogging from 60-85%BW @ 1-3° incline,
 4-10 mph. Can use shorts in AlterG adapted for lateral motion
 - When able to run for 10 minutes at 85% body weight, they may run on a regular treadmill or outside, field or court, but maintain brace or tape

PHASE IV (ADVANCED PHASE) Week 13 - Week 16 Goals:

• Progress with sports specific or recreational activities

Treatment Options:

Gait Training:

- AlterG Anti-Gravity Treadmill
 - Continue as above, maintain bracing or taping as needed
 - Continue AlterG for cardiovascular and endurance training purposesBegin a walk/jog progression at 75% body weight and progress to 85 -90%
 - Use body weight support if there is any residual pain with running

AlterG Progression Table

| Week | Program | Speed | Incline | Time | Sets |
|-------------|---|---------|---------|-----------|--------|
| Weeks 1-3 | Walking with boot in AlterG (50% BW) | 2-4mph | 0 % | 5-10 min | |
| Weeks 4-6 | Closed-Chain Activities/Proprio (50-85% BW) | 0 mph | 0 % | | 3 Sets |
| | Single-Limb Strength | 0 mph | | | 3 Sets |
| | Walking (50-85% BW) | 3-6mph | 0% | 5-10 min | |
| Weeks 7-12 | Single-Limb Strength | 0 mph | | | 3 Sets |
| | Jogging (60-85% BW) | 4-10mph | 1-3% | 10 min | |
| Weeks 13-16 | Jogging/Running (80-90% BW) | 5-12mph | 1-5% | 20-30 min | |