

## **Non-operative Treatment for Achilles Tendon Ruptures**

### **Accelerated Rehabilitation Program**

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#### **1-2 Weeks**

Cast with ankle in plantar flexion of approximately 20 degrees  
Non-weightbearing with Crutches

#### **2-6 weeks**

Walking boot With 2-4 cm heel Lift

Protected weight-bearing with crutches

- o Week 2-3 - 25%
- o Week 3-4 - 50%
- o Week 4-5 - 75%
- o Week 5-6 - 100%

Active plantar flexion and dorsiflexion to neutral, inversion/eversion below neutral

Modalities to control swelling

Incision mobilization modalities (if status post surgical repair)

Knee/hip exercises with no ankle involvement; e.g., leg lifts from sitting, prone or side-lying position

Nonweightbearing fitness/cardiovascular exercises; e.g., bicycling with 1 leg, deep water running

Hydrotherapy (within motion and weight-bearing limitations)

#### **6-8 Weeks**

Start removing heel lifts (1.5 cm lifts x2 with 3 peel-off sections each (6 total sections).

Remove one peel off every 2-3 days as tolerated. Entire process should take around 2-3 weeks).

Weight-bearing as tolerated

Dorsiflexion stretching, slowly; Active assisted dorsiflexion stretching, slowly initially with a belt in sitting position.

Graduated resistance exercises (open and closed kinetic chain as well as functional activities) --start with Theraband tubing exercises

Proprioceptive and gait training

Modalities including ice, heat, and ultrasound, as indicated

Fitness/cardiovascular exercises to include weight-bearing as tolerated; e.g., bicycling, elliptical machine, walking and/or running on a treadmill, StairMaster

Hydrotherapy

Active plantar and dorsiflexion range of motion exercises to neutral, inversion/eversion below neutral.

Modalities to control swelling (US, IFC with ice, Acupuncture, Light /Laser Therapy).

Scar mobilization and education re. wound management. (if applicable).

EMS to calf musculature with seated heel raises when tolerated.

Patients being seen 2-3 times per week depending on availability and degree of pain and swelling in the foot and ankle

Emphasize need of patient to use pain as guideline. If in pain back off activities and weight bearing.

Continue with EMS on calf with strengthening exercises. **Do not go past neutral ankle position.**

Weight – bearing as tolerated, usually 100% weight bearing in boot walker at this time.

**With weighted resisted exercises do not go past neutral ankle position.**

Gait retraining now that 100% weight bearing

### **8-12 weeks**

**\*\* Ensure patient understands that tendon is still very vulnerable and patients need to be diligent with activities of ADL and exercises. Any sudden loading of the Achilles (e.g. Trip, Step up stairs etc.) may result in a re-rupture\*\***

Wean off boot (usually over 4-5 day process – varies per patient)

Wear Compression ankle brace to provide extra stability and swelling control once walking boot removed.

Return to crutches/cane as necessary and gradually wean off

Continue to progress range of motion, strength, proprioception exercises

Add wobble board activities – progress from seated to supported standing to standing as tolerated.

Add calf stretches in standing (gently) **Do not allow ankle to go past neutral position.**

Add double heel raises and progress to single heel raises when tolerated. **Do not allow ankle to go past neutral position.**

Continue physiotherapy 1-2 times a week depending on how independent patient is at doing exercises and access they have to exercise equipment.

### **12-16 weeks**

Continue to progress range of motion, strength, and proprioception exercises

Retrain strength, power, endurance through Eccentric strengthening exercises and closed kinetic chain exercises

Increase cardio training to include running, cycling, Elliptical as tolerated

### **16 weeks +**

Increase dynamic weightbearing exercise, including sport specific Re-training

### **4-6 months**

Return To normal sporting activities that do not involve contact or sprinting, cutting, jumping etc

Patient needs To have regained approximately 80% strength to Participate

**6-9 months**

Return To all sports as long as patient has recovered 100% strength after Being cleared by physician