

Nonoperative Achilles Rupture

Phase I: Protection and Healing (0-8 weeks)

Weeks 0-2: Splint to plantar flexion

- NO WEIGHT BEARING in splint
- Elevate leg above heart 23 hours/day
- Ice behind knee to control pain and swelling

Weeks 2-4:

- Walking boot with 20° plantar flexion heel lift (3 wedges)
- Non-weightbearing with crutches
- Remove boot in seated position with lower extremity hanging free off table/chair/bed
 - o Active ankle dorsiflexion to neutral only followed by passive gravity-assisted plantar flexion as hard as is comfortable only
- Modalities as indicated
- Daily HEP for active dorsiflexion and passive plantar flexion as detailed above (5 minutes every hour)

Weeks 4-6: Begin protected weight bearing IN BOOT with 3 wedges

- Start with 25% weight, progress 25% per week until 100%
- Take one wedge out per week
- Monitor for swelling, use modalities for swelling and pain control
- Wear CAM boot or splint while sleeping until 8 weeks post-injury
- Use assistive device (walking, crutches, rollabout) at all times for safety
- Begin physical therapy. Not that the therapist should not at this time start passive dorsiflexion; this will over stretch the tendon
 - o Continue to work on AAROM and AROM with goal of obtaining neutral DF by 4-6 weeks post injury
 - o Limit active dorsiflexion to neutral and no passive stretching into dorsiflexion until 8 weeks post injury
 - o Initiate static balance activities in boot at 6 weeks post op.
 - o Patient may ride stationary cycle with light resistance with boot/brace on for 10 to 20 minutes
 - o Progress with PREs for proximal muscles and joints avoiding any closed changed activities with dorsiflexion post neutral until 8 weeks post injury

Phase II: Recovery (6-12 weeks)

GOALS:

- Return to normal gait pattern
- Pain and edema control
- Progress functional ROM

Weeks 6-8:

- Weightbearing in boot with crutches
- May remove boot for sleeping
- Continue exercise protocol

Weeks 8-12:

- Wean from boot to shoes with gel heel lift
- SLOWLY transition to regular shoe wear initially around the house, then increase to outside activities
- Patient may be progressed to HEP/gym program if gait is normal and pain and edema are minimal
- Initiate WB activities outside of boot and gradually progress. May use heel lifts or towels to maintain foot and ankle in slight plantarflexion.
- Initiate static balance activities as tolerated
- Initiate gentle passive dorsiflexion at 8 weeks
- Initiate light resistance bands (level 1)
- Initiate toe-raising exercises using the unaffected leg to support injured leg
- Once able to perform toe-raises with the injured leg unsupported, may begin Achilles stretching, strengthening and proprioception exercise

Weeks 12+:

- Progress balance with dynamic activities
- Initiate retro walking if patient has appropriate dorsiflexion ROM (5-10 degrees active)
- Continue to progress ROM, strength, and proprioception
- Retrain strength, power, and endurance
- Increase dynamic weight-bearing exercise, including plyometric training
- Sport-specific retraining
- Patient required to wear the boot while sleeping for first 6 weeks
- Patients can remove the boot for bathing and dressing, but are required to adhere to the weightbearing restrictions according to the rehabilitation protocol

Phase III: Retrain (12 to 24 Weeks)

GOALS:

- Improve functional mobility with stairs.
- Improve tolerance for ambulation
- Strength to WNL
- ROM to WNL
- Progress to return to prior level of activity/ sport

MONTHS 3-6:

- Progress progressive resistance exercises (PRE) as tolerated with focus on eccentric control with plantar flexion
- Progress closed chain activities
- Progress walking program, may progress to walk/ jog when able to perform minimum 15- 20 single leg toe raises with good control
- Non-athletic patients may be discharged to HEP/ Gym program

DRIVING:

- Right foot-begin at 8 weeks if surgery as long as off narcotics
- Left foot-may drive when off pain meds if automatic transmission vehicle

BIKING/SWIMMING: May begin at 8 weeks post-op

RUNNING/HIGH IMPACT: May begin 4-6 months after surgery