

Achilles Tendon Repair

Phase I (1 – 5 days post op)

- Patient splinted for first two weeks

Phase II (5 days – 4 weeks post-op)

3 weeks

- Cast removed 3 weeks post-op
- Weight Bearing:
 - WBAT in Cam boot and with crutch following cast removal.
 - Begin NWB in boot with 3 heel wedges (issued by physician) in Cam boot only. NWB while out of boot, such as for bathing.
- ROM
 - Begin AROM of toes, ankle inversion and eversion, knee and hip regions
 - No active or passive DF (active begins at 4 weeks and passive at 6 weeks)
 - Begin joint mobilization all planes for the foot and ankle region avoiding passive stretch into dorsiflexion.
- Modalities as needed for pain and inflammation.
- Strengthening:
 - Cycling with non-operative lower extremity
 - Hip and knee strengthening NWB
 - Theraband ankle inversion and eversion only

Phase III (4 – 10 weeks post-op)

4 – 8 weeks

- Wound care: observe for signs of infection and begin scar management techniques when incision is closed
- Modalities as needed for pain and inflammation. Contrast bath if significant edema.
- Gait
 - Begin to progress weight bearing in Cam boot at week 4 with goal of progression to FWB in boot by 6 – 8 weeks with 2 heel wedges
 - Remove one heel wedge/week beginning at week 5 depending on patient progress and severity of injury.
 - No barefoot walking.
 - Gradually progress weight bearing tolerance out of the walking boot with heel wedges placed under bare foot beginning week 5. Discontinue use of walking boot by 8 – 10 weeks with 1 – 2 heel wedges place in normal shoe or shoe with at least ¼ inch heel.
- Boot/Splint
 - Wean from cam boot starting at 6 weeks with D/C by 8 weeks
 - Night splint for protection during sleep

- ROM
 - o Full plantarflexion
 - o Dorsiflexion limited to 0 degrees at 4 weeks.
 - o Inv/Eve AROM unlimited.
- Strengthening:
 - o Boot with heel lift can be modified with certain exercises by having a lift under the patients heel while barefoot on the BAPS, pre-gait FWB exercises, single leg stand balance, wall squats (with Cam walker), etc.
 - o Gentle plantar flexion AROM NWB
 - o Strengthen intrinsic and extrinsic muscles of foot and ankle
 - o Cardiovascular exercise including stationary bike with boot and UBE
 - o Pool therapy for gait training, heel raises, and LE AROM in deep water
- Mobilization: Soft tissue, scar, and joint mobilization (hindfoot, midfoot, and forefoot)

6 – 10 weeks

- Wound care: continue scar management techniques
- Modalities: continue prn
- Gait
 - o Progress patient to FWB in a shoe with a lift depending a severity of initial injury (check with physician lift may not be required)
 - o No barefoot walking
- Boot/Splint
 - o D/C cam walker at 8 weeks progressing patient to normal footwear by 8 – 10 weeks
 - o D/C night splint
- ROM
 - o Gentle DF stretching may begin
 - o A/PROM WNL by 8 – 10 weeks.
- Strengthening
 - o Progress AROM and light resisted plantarflexion beginning with isometrics and Theraband
 - o Continue to progress all other exercises for LEs and cardio
 - o If exercising in pool, decrease frequency and transition to land based exercises only

Phase IV (10 + weeks post-op)

- Wound care: continue scar mobs
- Modalities: continue prn
- Gait: continue to wear heel lift in shoe if prescribed
- Strengthening:
 - o Advance strength program with goal of return to work or sports activities
 - o At 12 – 16 weeks: May begin treadmill, stepper, plyometrics, BAPS, and sports drills
- Precautions: Contact physician regarding initiation of sports related drills and plyometric activities
Initiate work conditioning for job related injuries. Gradually initiate sport specific drills and exercises including slow cutting and jumping after authorization from physician. Follow up with school athletic trainer to continue sport specific training and skills.

Adapted from:

1) Brotzman SB, Wilk KE. Clinical Orthopedic Rehabilitation. 2nd Ed. Philadelphia: Mosby; 2003

2) The Stone Clinic. Achilles Tendon Repair. Available at <http://stoneclinic.com/achillesrehab>: Accessed November 11, 2008



Geoffrey Van Thiel, MD
www.vanthielmd.com