



## Acute Achilles Tendon Repair

### Achilles Tendon Repair Wedges

Procure set of 4 wedges are utilized. Top wedge is a heel cup shape and covered by black neoprene lining. The remaining 3 wedges are each  $\frac{3}{4}$  inch in thickness.

### Phase I (1 – 5 days post op)

- Patient casted until 3 weeks p/o.

### Phase II (5 days – 4 weeks post-op)

#### 3 weeks

- Cast removed 3 weeks p/o and therapy initiated.
- Weight Bearing:
  - Begin PWB with 4 wedges (see above) in walking boot with crutches
  - Remove 1 wedge at 5 weeks p/o.
  - Progress to FWB in boot by 6 weeks with 2 wedges (heel cup and one  $\frac{3}{4}$  inch wedge).
  - No barefoot walking until 10 weeks p/o.
- ROM
  - Begin AROM: toes, ankle inversion and eversion only, knee and hip regions
  - No active or passive DF or PF.
- Mobilization
  - Begin joint mobilization all planes for the foot and ankle region avoiding passive stretch beyond neutral dorsiflexion.
- Modalities
  - Modalities as needed for pain and inflammation.
- Strengthening:
  - Cycling with non-operative lower extremity
  - Hip and knee strengthening NWB
  - AROM ankle inversion and eversion only
  - Weight shifting only for weight bearing strengthening in boot w/wedges.
- Night Splint
  - 3 weeks p/o night splint set to 10 degrees of PF. Progress to a 90 degree angle or neutral by 6 weeks p/o

### Phase III (4 – 10 weeks post-op)

#### 4 – 6 weeks

- Weight Bearing
  - Continue with 4 wedges and progress towards the goal of FWB with 2 wedges in the boot by 6 weeks p/o.
  - Heel Wedges: 4 weeks p/o: 4 wedges, 5 weeks p/o: 3 wedges, 6 weeks p/o: 2 wedges (Note: patient may experience a gentle stretch or pulling that should resolve within 2 days when a heel wedge is removed. If symptoms persist or worsen, the heel wedge may be left in for a longer period of time.)
- ROM
  - Week 5: May begin gentle AROM both DF to neutral only and PF



- Joint Mobilization
  - o Continue towards normal mobility. Continue to avoid passive stretching beyond neutral DF.
- Strengthening
  - o Stationary bike and/or recumbent stepper with boot.
  - o Continue to progress WB activities in boot with appropriate number of wedges for postoperative status including weight shifting, balance activities, wall slides and step ups in boot.
  - o Weight shifting and balance out of boot with 1 wedge more than what is in the boot that is placed under foot beginning 5 weeks p/o: 4 wedges, 6 weeks p/o: 3 wedges.

#### **6 - 8 weeks**

- Weight Bearing
  - o FWB in boot with 2 wedges.
  - o Heel wedges: 6 weeks p/o: 2, 7 weeks p/o: 1, 8 weeks p/o: boot w/o wedges.
  - o Goal of progression to FWB in regular footwear with ½ inch felt wedge by 8-10 weeks p/o.
- ROM
  - o Begin gentle passive DF stretching to neutral only.
  - o PF/Inv/Eve AROM WNL.
- Joint Mobilization
  - o Normalize joint mobility continuing to avoid DF beyond neutral.
- Strengthening
  - o Progress WB strengthening activities in boot. Patient may begin weight shifting and balance activities without the boot with 1 wedge more than what is in the boot, for example; 6 weeks p/o: 3 wedges.
  - o Begin PRE with gentle resisted PF with light theraband.
- Night Splint
  - o Night splint should be progressed to neutral or 90 degree angle by 6 weeks. Continue at neutral position until 9 weeks p/o. D/C night splint at 9 weeks p/o.

#### **8-10 Weeks**

- Weight Bearing
  - o Progress from boot to FWB in regular footwear with ½ inch felt heel wedge by 10 weeks p/o.
- ROM
  - o Progress ankle DF PROM beyond neutral.
  - o All ankle A/PROM WNL by 10 weeks p/o.
- Strengthening
  - o Begin PWB bilateral calf raises at 8 weeks p/o progressing to FWB bilateral calf raises at 10 weeks p/o
  - o Progress strengthening from boot to regular footwear with wedge: SLS balance activities, closed chain strengthening including step ups, BAPS, wall squats, body weight squats. Continue open chain hip and knee strengthening as needed. Patient may begin recumbent bike without boot.
- Night Splint
  - o DC at 9 weeks p/o



**Phase IV (10 + weeks post-op)**

- Weight bearing
  - o May begin barefoot walking
  - o Continue to wear heel lift in shoe if prescribed by MD
- ROM
  - o Normalize all AROM/PROM
- Strengthening:
  - o More aggressive calf strengthening with single calf raises by 12 – 14 weeks p/o.
  - o Advance strength program with goal of return to ADLs and RTW.
  - o At 14 – 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 Second Edition. Philadelphia: Mosby; 2003