

## Achilles Rupture

### Post-Operative Protocol

#### Weeks 0 to 2:

- Splint, non-weight bearing with crutches, no scooter use

#### Weeks 2 to 4:

- Walking boot with 5-cm heel lift (3 level wedge)
- Partial protected weight-bearing with crutches; progressive increase in weight bearing 25% of body weight/week
- Active plantar flexion and dorsiflexion to neutral, inversion/eversion below neutral
- Modalities to control swelling
- Scar mobilization
- Open kinetic chain hip and knee exercises (in boot or without ankle involvement)
- Non-weight bearing fitness/cardiovascular exercises (bicycling with one leg, etc.)
- Hydrotherapy (within motion and weight-bearing limitations)

#### Weeks 4 to 6:

- Remove 1 level of wedge from boot (2 levels in boot)
- Advance to full weight bearing with boot; wean off crutches
- Continue weeks 2-4 protocol

#### Weeks 6 to 8:

- Remove 1 level of wedge from boot (1 level in boot)
- Weight-bearing as tolerated in boot
- Dorsiflexion stretching, slowly
- Graduated resistance exercises (open and closed kinetic chain as well as functional activities)
- Ankle 4-way resistance band exercises
- Modalities including ice, heat and ultrasound, as indicated
- Scar mobilization
- Cardiovascular fitness: bike or elliptical in boot
- Hydrotherapy when incisions are healed (chest depth)

#### Weeks 8 to 12:

- Remove wedge from boot
- Wean from boot as tolerated
- 1-cm silicone heel cup in sneaker x 6 weeks (then d/c)
- Must wear a shoe with heel cup at all times, no walking barefoot or sandals
- Return to crutches and/or cane if necessary and gradually wean off
- Continue to progress range of motion, strength
- Proprioceptive and gait retraining
- Double Leg Heel Raises on flat surface (once FWB)
- Elliptical Trainer and bike without boot

#### Weeks 12 to 24:

- Progress double leg heel raises to step or slant board
- Single leg calf raises (use eccentrics as needed)
- Progression of closed chain strengthening
- Treadmill walking

#### Week 24:

- Pass preliminary functional test >90% on all tests

**Months 6 to 9 (must pass Preliminary Testing to advance):**

- Plyometric training
- Initiate return to running
- May begin with chest deep water treadmill running or Alter G
- Criteria to run:
  - Pass functional test >90%
  - Equal ROM
  - Equal plantarflexion strength (25 SL heel raises)
- Sport specific training
- Cutting, stop and go movements
- Landing and jumping

**Months 9+:**

- Pass Full Return to Sport Testing > 90% on all tests
- Gradual return to sport

**Patients are required to wear the boot while sleeping. Patients can remove the boot for bathing and dressing, but are required to adhere to the weight-bearing restrictions according to the rehabilitation protocol. If, in the opinion of the physical therapist, scar mobilization is indicated, scar mobilization should be attempted using friction, ultrasound or stretching (if appropriate). Heat may be applied as indicated before beginning mobilization techniques.**

Rev. 12/2019