Connecticut Orthopaedics

Megan R. Wolf, MD
Sports Medicine/Foot & Ankle

Achilles Tendon Repair-Delayed
Post-Operative Protocol

Weeks 0-2

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

Postoperative Weeks 2-4

- Cast in plantarflexion, non-weight bearing with crutches, no scooter use

Postoperative Weeks 4-6

- 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)

Postoperative Weeks 6-10

- Remove 1 level of wedge from boot (2 levels in boot)
    - Remove 1 level of wedge from boot at 8 week park (1 level in boot)
- Weight bear 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)

Postoperative Weeks 10-12

- Advance to full weight bearing in boot; wean off crutches
- Remove wedge from boot
- Continue to progress range of motion, strength
- Proprioceptive and gait retraining
- Elliptical Trainer and bike with boot
- Chest deep treadmill or Alter G walking

Postoperative Weeks 12-16

- 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
- Double Leg Heel Raises on flat surface (once FWB)

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Postoperative Weeks 16-24

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

Postoperative Week 24

- Pass Preliminary Functional Test >90% on all tests

Postoperative 6-9 months (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

Postoperative 9 months+

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

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.

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