Dr. Garrett Gilbert
Orthopedic Sports Medicine Surgeon
Office: 816-525-2840
Text: 816-551-2339
SanoKC.com

Achilles Tendon Repair Postop Protocol

Phase 1: Immediate Postoperative (0–2 weeks)

Goals: Protect repair, control swelling, initiate very early protected motion, and prevent proximal joint stiffness.

- **Immobilization:** CAM walking boot with ~20° plantarflexion, 3 heel wedges (~2–3 cm lift).
  - Ok to remove boot at rest to elevate and ice
- **Weight Bearing:**
  - Partial Weight bearing with crutch assistance
- **ROM:**
  - Gentle active plantarflexion in boot.
- **Exercises:**
  - Isometric quad/glute sets
  - Straight leg raises
  - Core strengthening
- **Precautions:** Avoid dorsiflexion past boot setting; no resistance exercises yet.

Phase 2: Early Motion & Progressive Weight Bearing (2–4 weeks)

Goals: Increase controlled ankle motion, normalize partial weight-bearing gait, maintain calf protection.

- **Immobilization:** Boot remains in ~20° plantarflexion; remove 1 heel wedge at week 3.
- **Weight Bearing:** WBAT in boot; goal is normalized gait with assistive device by week 4.
- **ROM:**
  - Plantarflexion: Active motion within pain-free range.
  - Dorsiflexion: To boot neutral limit, still avoid beyond neutral.
  - Gentle inversion/eversion in neutral position.
- **Exercises:**
  - Seated heel raises in boot (no load)
  - Theraband inversion/eversion
  - Light stationary bike with boot on (no resistance).

Phase 3: Transition to Neutral & Strengthening (4–8 weeks)

Goals: Achieve neutral ankle position in boot, initiate light calf loading, progress WB to full without crutches.

- **Immobilization:** Remove remaining heel wedges by week 6; boot in neutral thereafter.
- **Weight Bearing:** Full WB in boot without crutches by week 6–7.

- **ROM:**
  - Dorsiflexion gradually to neutral outside boot by week 6–8.
  - Plantarflexion full, pain-free.
- **Strengthening:**
  - Double-leg calf raises (partial range at first)
  - Theraband plantarflexion, inversion, eversion
  - Hip/core strengthening
- **Precautions:** No single-leg heel raises yet.

Phase 4: Out of Boot & Advanced Strengthening (8–12 weeks)

Goals: Regain normal gait in supportive shoe with heel lift, increase calf strength, restore proprioception.

- **Immobilization:** Transition to supportive sneaker with 1–1.5 cm heel lift.
- **ROM:** Progress dorsiflexion past neutral as tolerated.
- **Strengthening:**
  - Standing double-leg calf raises → eccentric lowering from step
  - Single-leg stance balance
  - Pool running or water jogging
- **Neuromuscular Training:** Balance board, agility ladder (low intensity).

Phase 5: Plyometrics & Return to Running (12–20 weeks)

Goals: Restore explosive strength, agility, and sport-specific movement.

- **Strengthening:**
  - Single-leg calf raises (goal: 25 reps pain-free)
  - Box step-ups and eccentric step-downs
- **Plyometric Training:**
  - Hopping in place → bounding → multidirectional jumps
- **Running:** Straight-line jogging when single-leg calf raise strength ≥80% of contralateral limb.

Phase 6: Return to Sport (5–6+ months)

Goals: Full return to unrestricted sport or work activities.

- **Criteria for Return:**
  - Single-leg heel raise endurance ≥90% of contralateral limb
  - Hop and agility testing ≥90% symmetry
  - No pain, swelling, or functional limitations
  - Surgeon clearance
- **Exercises:** Unrestricted sprinting, cutting, pivoting, plyometric progressions, and sport-specific drills.

Key Evidence Notes:

- Early WBAT and motion significantly reduce rerupture risk and improve functional recovery compared to cast immobilization (Willits et al., 2010).
- Progressive wedge removal protects repair while maintaining tendon length during early healing (Brumann et al., 2014).