

# Achilles Tendon Repair Protocol

| Week Four To Eight   | Weeks Eight To Twelve  |
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| <b>Initial Evaluation</b>  | <b>Evaluate</b>  |
| <ul style="list-style-type: none"> <li>➤ Incision</li> <li>➤ Swelling (Weekly circumferential thigh and calf measures)</li> <li>➤ Gait in a CAM boot with 2 wedges NWB x 6 weeks</li> <li>➤ GENTLE AROM -20 to 0 (NO PASSIVE)</li> <li>➤ Assess RTW and sport expectations</li> </ul>  | <ul style="list-style-type: none"> <li>➤ Active range of Motion</li> <li>➤ Swelling and tenderness</li> <li>➤ Strength</li> <li>➤ Gait</li> <li>➤ Assess foot position/mechanics and advise (in conjunction with referring provider) on appropriate footwear/orthotic need.</li> </ul>   |
| <b>Patient Education</b>   | <b>Patient Education</b>   |
| <ul style="list-style-type: none"> <li>➤ Support Physician prescribed meds</li> <li>➤ Swelling control and incision care.</li> <li>➤ <b>Initiate WBAT at 6 weeks</b></li> <li>➤ <b>Remove 1 wedge every 2 weeks beginning at week 6</b></li> <li>➤ Discuss frequency and duration of treatment (2-3x/wk is expected for 8 weeks. Periodic visits for up to 24 weeks.</li> </ul>                          | <ul style="list-style-type: none"> <li>➤ No running or jumping</li> <li>➤ <b>Wean from CAM boot, returning to use of assistive device (as needed) WBAT</b></li> <li>➤ <b>FWB out of Cam boot by week 10-12</b></li> </ul>  |
| <b>Therapeutic Exercise</b>  | <b>Therapeutic Exercise</b>  |
| <ul style="list-style-type: none"> <li>➤ Initiate stationary bicycle in boot</li> <li>➤ AROM to 0 degrees DF until week 6</li> <li>➤ Proximal LE strengthening and core stability in boot (leg raises, clamshells, bridges)</li> <li>➤ May initiate gentle heel cord stretching at 6 weeks</li> <li>➤ Initiate shallow water aquatics for gait and deep water for endurance/cardio at 6 weeks</li> </ul> | <ul style="list-style-type: none"> <li>➤ Continue bicycle or elliptical/walking on treadmill</li> <li>➤ Continue heel cord stretching</li> <li>➤ Begin PF and DF PRE</li> <li>➤ Inversion/eversion isometrics progressing to isotonic</li> <li>➤ Static balance and proprioceptive exercises</li> <li>➤ Progress to closed chain strengthening (squat, step up, bilateral HR at 10-12 weeks)</li> <li>➤ Continue/progress core stability activity</li> <li>➤ Progress aquatics for LE strengthening and flipper use for ROM</li> </ul> |
| <b>Manual Techniques</b>   | <b>Manual Techniques</b>   |
| <ul style="list-style-type: none"> <li>➤ Edema reduction techniques and scar mobilization/desensitization beginning at 3 weeks given good wound closure and healing</li> </ul>   | <ul style="list-style-type: none"> <li>➤ PROM, Mobs as needed</li> <li>➤ Scar mobilization/desensitization</li> </ul>  |
| <b>Modalities</b>  | <b>Modalities</b>  |
| <ul style="list-style-type: none"> <li>➤ Cryotherapy weeks 2-6</li> <li>➤ Moist heat at 6 weeks</li> <li>➤ All others as indicated and dependent on wound closure</li> </ul>   | <ul style="list-style-type: none"> <li>➤ As indicated</li> </ul>   |
| <b>Goals</b>   | <b>Goals</b>   |
| <ul style="list-style-type: none"> <li>➤ Protect repair</li> <li>➤ Reduce swelling and tenderness</li> <li>➤ Early gentle ROM</li> <li>➤ Normal gait in cast-boot</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Protect repair</li> <li>➤ Normal incision mobility</li> <li>➤ Gain ROM (Normal ROM expected by 16 weeks post)</li> <li>➤ Strength 3+/5 to 4/5</li> <li>➤ Progress to FWB out of boot by 12 weeks</li> </ul>   |

| Weeks 13 To Discharge  | Return To Sports Criteria  |  |
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| <b>Evaluate</b>  |  |  |
| <ul style="list-style-type: none"> <li>➤ ROM</li> <li>➤ Strength and balance</li> <li>➤ Address any deficits that may limit return to work or sport goals</li> <li>➤ HEP compliance</li> </ul>   | <ul style="list-style-type: none"> <li>➤ Eccentric heel raise on involved LE for 2 sets of 15</li> <li>➤ Lateral step down for 2 sets of 15</li> <li>➤ Bilateral toe walking with no heel drops or shifting toward uninvolved LE</li> <li>➤ Run x 5 minutes with no deviation at heel strike</li> <li>➤ Triple hop test for distance (must be 90% of uninvolved LE)</li> </ul> |  |
| <b>Therapeutic Exercise</b>  |  |  |
| <ul style="list-style-type: none"> <li>➤ Heel raises progressing to eccentrics and single leg</li> <li>➤ Aggressive ankle strengthening all planes</li> <li>➤ Heel and toe walking</li> <li>➤ Dynamic balance progression</li> <li>➤ Progress closed chain exercise</li> <li>➤ May begin agility and plyometric activity at 16 weeks with physician approval</li> <li>➤ May begin jogging at 16 weeks with physician approval</li> <li>➤ Encourage participation in the CFA</li> </ul> |  |  |
| <b>Manual Techniques</b>   |  |  |
| <ul style="list-style-type: none"> <li>➤ Any as indicated</li> </ul>   |  |  |
| <b>Modalities</b>  |  |  |
| <ul style="list-style-type: none"> <li>➤ Any as Indicated</li> </ul>   |  |  |
| <b>Goals</b>   |  |  |
| <ul style="list-style-type: none"> <li>➤ Full ROM</li> <li>➤ 20% or less deficit in gastroc/soleus strength</li> <li>➤ Return to work or sport</li> <li>➤ Independence with HEP</li> </ul>   |  |  |

**References:**

1. Saxena. Strategies for Rehab. After Achilles Tendon Surgery. Lower Extremity Review Magazine, 2013
2. N. Worth, S. Ghosh, N. Maffuli. Management of Acute Achilles Tendon Ruptures in the United Kingdom, Journal of Orthopedic Surgery, 2007.
3. Spooner, A. A. Suchak, D. Reid, N.M. Jomha. Lippincott, Williams and Wilkins (eds). Postoperative Rehabilitation Protocols for Achilles Tendon Ruptures- A Meta-analysis 2006.
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