

# Utilization of a Next Generation Decellularized Dermal Allograft to Augment the Repair of a Re-Ruptured Achilles Tendon

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## **Surgical Summary**

#### **Clinical Presentation:**

- 66-year-old female with left sided heel pain for over 1 year. Attempted conservative treatment options: boot, physical therapy, and nonsteroidal antiinflammatory drugs (NSAIDs).
- MRI at that time showed Haglund's with moderate to severe hypertrophic tendinopathy and interstitial tearing.
- Subsequent need for surgical intervention: Achilles tendon debridement and repair with GraftJacket® for augmentation and Haglund's resection. Discharged to home, non-weightbearing for 4 weeks, followed by physical therapy and weight bearing in a boot.
- Continued to complain of pain and swelling; Failed physical therapy, and further non-operative management (NSAIDS, rest, immobilization).
- Repeat MRI showed severe hypertrophic tendinopathy with 4 cm ill-defined tear with full thickness component filled with inflammatory tissue, no gap.

### **Intraoperative Findings:**

• Previous achilles tendon debridement site was noted. Ruptured achilles tendon (Figure 1 and 2), with significant inflammation; presence of residual Graftjacket®.





Figure 1

### **Surgeon Perspective:**

"DermaPure® brings both biologic and mechanical advantages. Its easy handling, biomechanical properties, and proven increase in pro-angiogenic factors, make it ideal for tendon healing.1"

Figure 2



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## **Surgical Procedure:**

- Surgical incision through previous lateral approach at the base of the achilles, revision calcaneal exostectomy and decompression.
- Debridement of achilles tendon, removed residual Graftjacket®, extensive resection followed by side to side repair of the achilles tendon.
- DermaPure® decellularized dermal allograft placed circumferentially, with the basement membrane outermost, to augment the side to side repair (Figure 3 and 4).





Figure 3 Figure 4

## **Post-Operative Note:**

- Discharged to home non-weight bearing for 4 weeks, to be followed by physical therapy and weightbearing in a boot.
- · Patient is being followed routinely to assess clinical outcomes.

**DermaPure® Implantation:** 

- 4 cm x 6 cm
- · Basement membrane outer-most

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1. Greaves NS, Lqbal SA, Morris J, et al. Acute cutaneous wounds treated with human decellularised dermis show enhanced angiogenesis during healing. PLoS One. 2015;10(1):e0113209. Published 2015 Jan 20. doi:10.1371/journal.pone.0113209

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