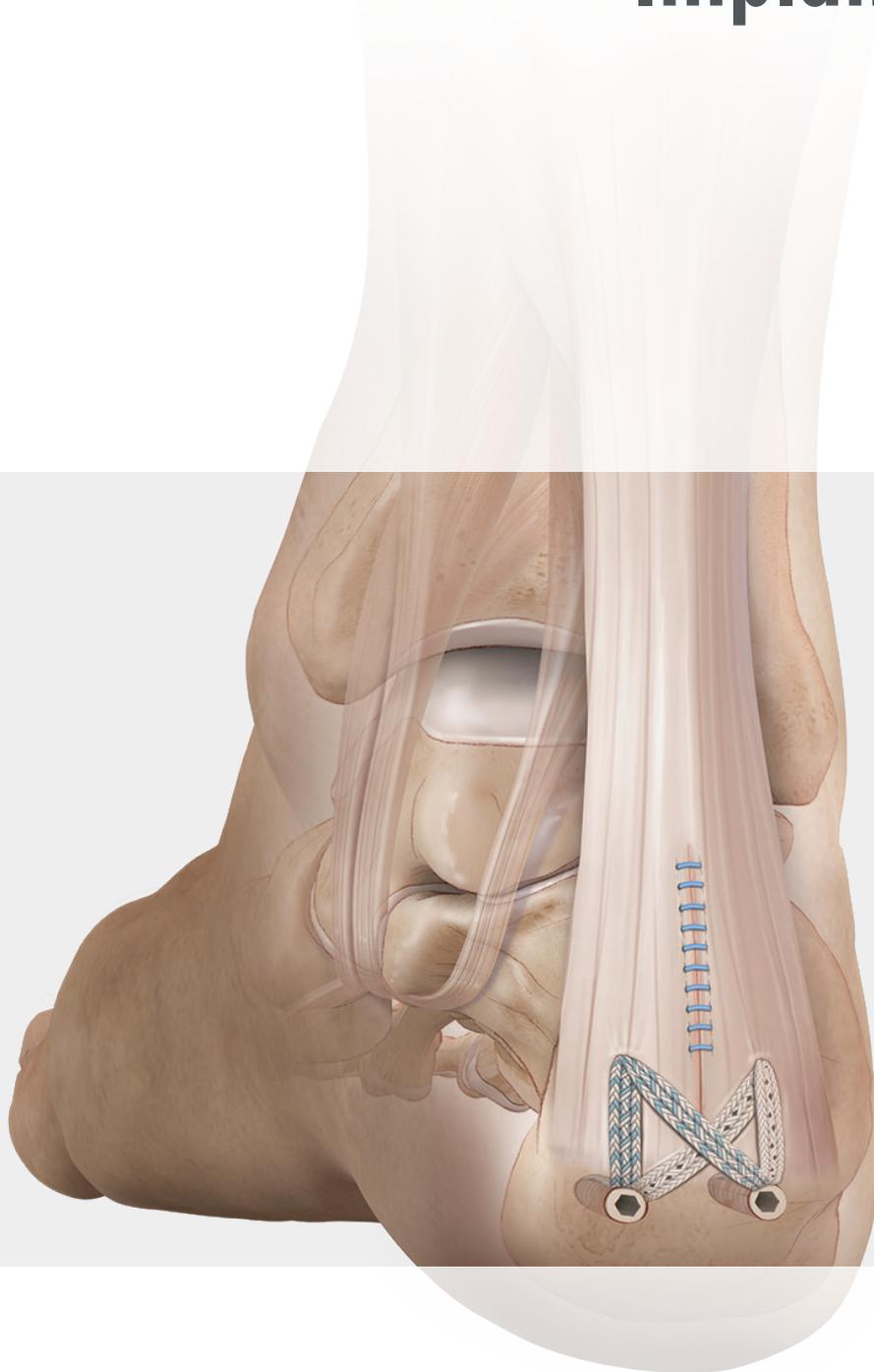


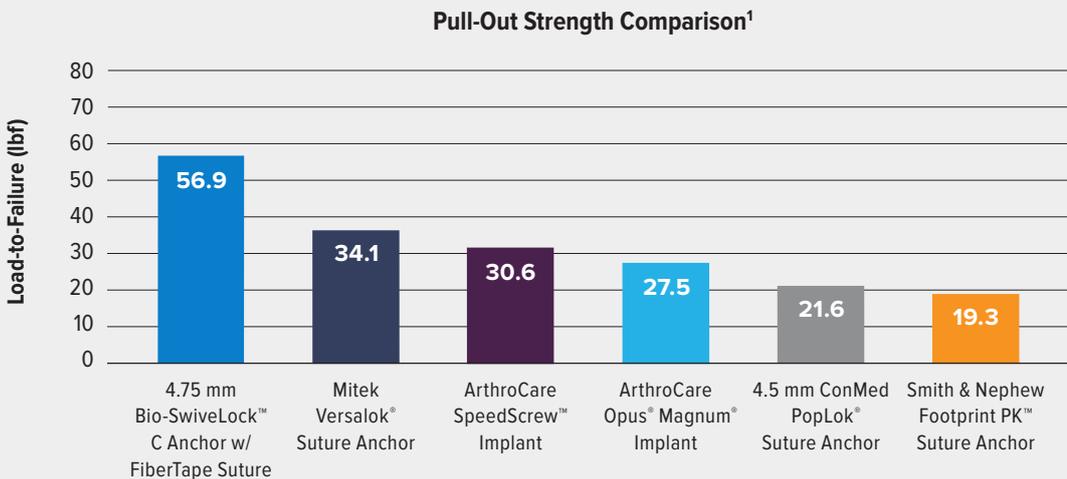
Achilles SpeedBridge™ Repair Implant System

Surgical Technique



The Achilles SpeedBridge™ Repair Implant System

The Achilles SpeedBridge implant system is a novel concept in Achilles reattachment following Haglund’s debridement. This repair enables an hourglass pattern of FiberTape® suture to be laid over the tendon’s distal end in a completely knotless 4-anchor configuration. The Achilles SpeedBridge repair provides rigid tendon fixation with improved tendon-to-bone opposition such that immediate postoperative weightbearing and range of motion may be possible.^{1,2}



Achilles SpeedBridge Repair Implant System Including JumpStart® Antimicrobial Wound Dressings

JumpStart wound dressings are an easy-to-use, conformable, and protective solution for the postoperative management of surgical incisions. This advanced wound dressing uses Advanced MicroCurrent Technology® to provide sustained, broad-spectrum antimicrobial efficacy, including protection against antibiotic- and biofilm-resistant pathogens.³

Embedded in the JumpStart dressing are islands of elemental silver and zinc, which create microcell batteries designed to generate electrical currents. These microcurrents generate a stimulus to initiate cell migration and re-epithelialization, an essential activity for wound healing.⁴

Included in this implant system

Product Description	Item Number
Single-Layer Dressing, 2 in × 5 in	ABS-4025

Advanced MicroCurrent Technology is a trademark of Vomarix Wound Care, Inc.



The Achilles SpeedBridge™ Repair Implant System

AR-8928BC-CP

3.5 mm
Drill Bit



Tap
With Handle



4.75 mm SwiveLock® Anchors
With #2 FiberWire® Suture and
FiberTape® Loop With Needle



Tap With AO
Quick Connect



Drill Guide

4.75 mm SwiveLock
Anchors With #2 FiberWire Suture



1
With the patient in a prone position, make a direct midline incision posteriorly. Carry the incision down to the calcaneus and Achilles tendon insertion. Split the Achilles tendon at the midline incision, full thickness, from posterior to anterior and debride, removing all tendinopathic tissue.

Release the Achilles tendon distally and reflect medially and laterally to expose the whole calcaneal tuberosity with a Haglund's prominence. Take care to maintain some medial and lateral attachments to assist with the accurate restoration of the Achilles' length. In some cases, complete tendon debridement may require complete tendon detachment.



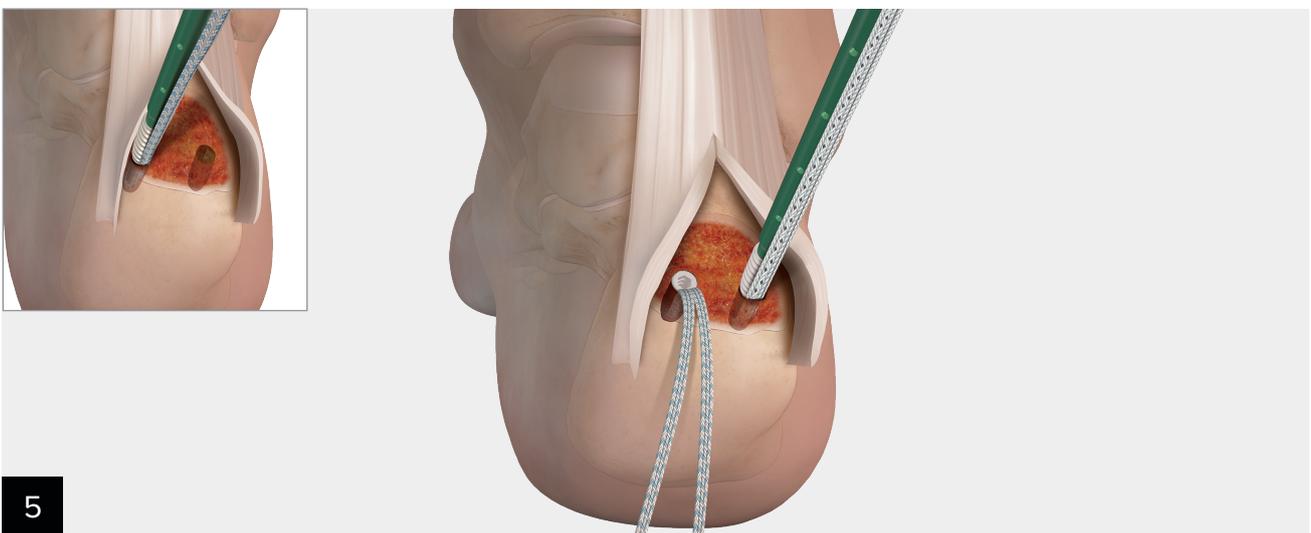
2
Remove the Haglund's prominence using a microsagittal saw and osteotome. Take care to chamfer off the medial and lateral sides of the calcaneus so as not to leave a prominence that is palpable under the skin, creating difficulties with footwear.



3
Prepare the bone for insertion of the two 4.75 mm BioComposite SwiveLock® anchors by drilling down to the laser line or to the shoulder stop when using the drill guide. Create two holes about 1 cm proximal to the distal insertion of the Achilles tendon and central to each half of the tendon.

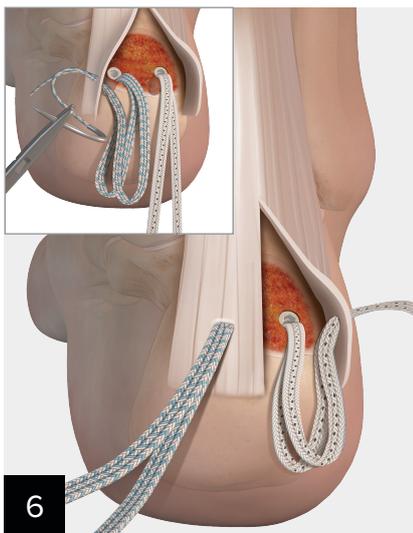


Use the 4.75 mm SwiveLock® tap to prepare the holes for the 4.75 mm SwiveLock anchors. Fixed handled or quick connect 4.75 mm SwiveLock taps are available. Tap to the laser line or the shoulder stop.



Insert the two 4.75 mm BioComposite SwiveLock anchors loaded with FiberTape® sutures, one blue and one white/black, into the proximal holes. Place the eyelet completely in the drill hole until the anchor body makes contact with the bone. Hold the thumb pad steady and rotate the driver handle in a clockwise direction until the anchor body is flush with the bone.

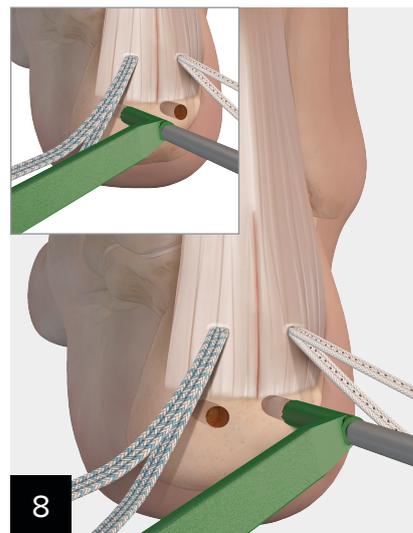
Note: To remove the driver, unwind the #2 FiberWire® tip retention suture that holds the PEEK tip in place during anchor insertion. This suture may be incorporated into the repair or discarded.



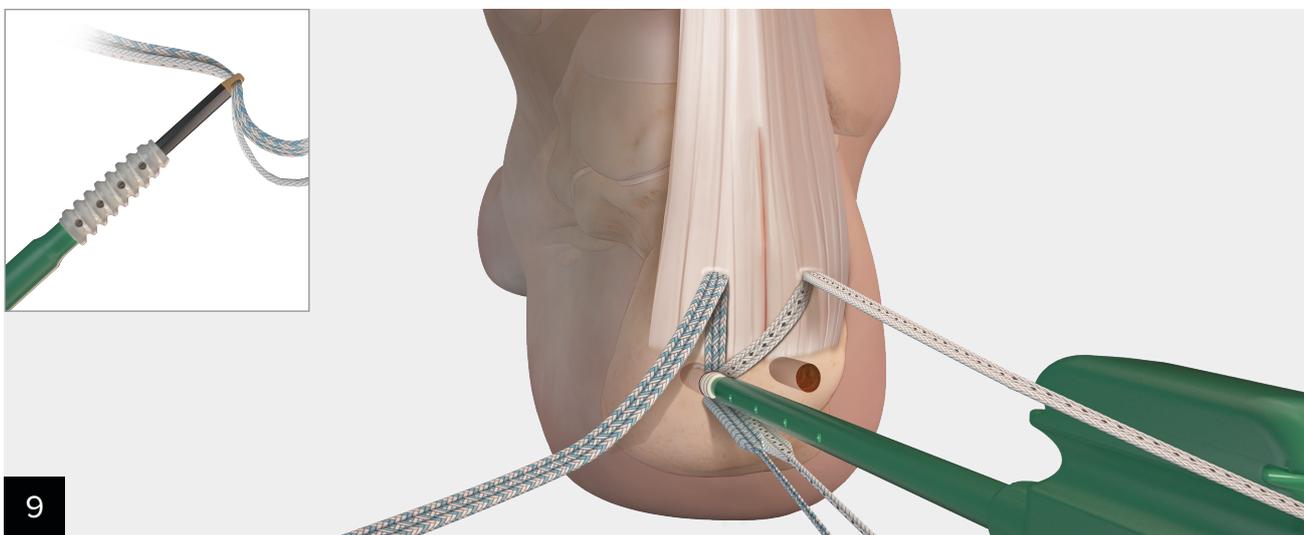
6 Pass the needle attached to the 2 mm FiberTape® suture through the Achilles tendon on each side.



7 Prepare the distal holes with the 3.5 mm drill in the same manner as the proximal holes.

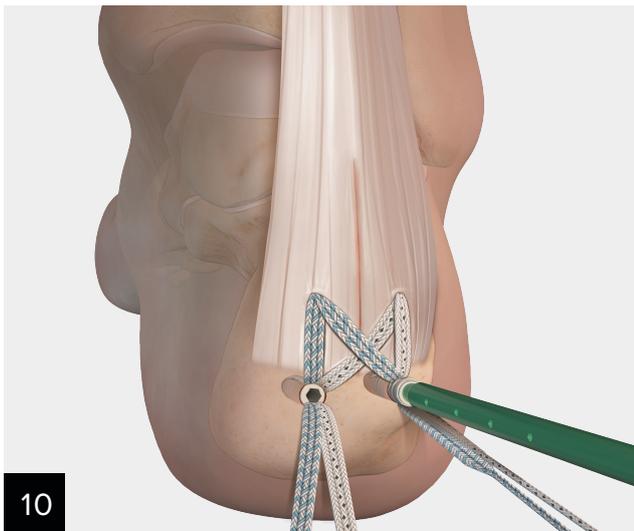


8 Tap the distal holes in preparation for the 4.75 mm SwiveLock® anchors.

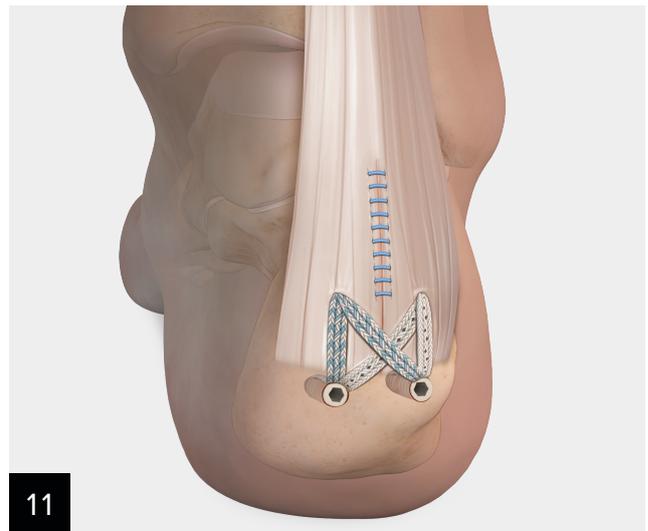


9 After cutting the swedged portion on each proximal anchor, retrieve one FiberTape suture tail from each proximal anchor (one blue and one white/black) and preload them through the distal SwiveLock anchor eyelet.

Adjust the tension of the FiberTape suture and insert the 4.75 mm SwiveLock anchor into the prepared distal bone socket until the anchor body contacts bone. Do not attempt to adjust tension while the eyelet is in the hole. Make sure the anchor is flush to the bone prior to removing the handle.



10 Repeat Step 9 for the other distal 4.75 mm SwiveLock® anchor using the remaining two tails from the proximal row.



11 Cut the tails on the distal row flush to the SwiveLock anchor, resulting in the final knotless repair.

Note: Two #2 FiberWire® sutures may be used to provide additional fixation to the distal tendon.



JumpStart® Antimicrobial Wound Dressing Application
Remove the 2 in × 5 in single-layer JumpStart wound dressing from the sterile package. If needed, cut the dressing to a size that extends 1 cm to 2 cm beyond the top and bottom of the incision. Apply saline or hydrogel to the dotted side.

Place the dressing over the incision dotted side down so the dots are in direct contact with the incision. Cover the back side of the JumpStart wound dressing with moistened gauze to maintain a moist environment and keep batteries activated.

Ordering Information

BioComposite Achilles SpeedBridge™ Repair With JumpStart® Antimicrobial Wound Dressing Implant System

Product Description	Item Number
BioComposite SwiveLock® Suture Anchor w/ #2 FiberWire® Suture and FiberTape® Loop w/ Needle, 4.75 mm	AR-8928BCJ-CP
BioComposite SwiveLock Suture Anchor w/ #2 FiberWire Suture and TigerTape™ Loop w/ Needle, 4.75 mm	
BioComposite SwiveLock Suture Anchors w/ #2 FiberWire Suture, 4.75 mm, qty. 2	
Punch/Tap w/ AO Quick Connect	
Punch/Tap w/ Handle	
Drill Guide	
Drill Bit, 3.5 mm	
JumpStart Single-Layer Dressing, 2 in × 5 in	

PEEK Achilles SpeedBridge Repair With JumpStart Antimicrobial Wound Dressing Implant System

Product Description	Item Number
PEEK SwiveLock Suture Anchor w/ #2 FiberWire Suture and FiberTape Loop w/ Needle, 4.75 mm	AR-8928PJ-CP
PEEK SwiveLock Suture Anchor w/ #2 FiberWire Suture and TigerTape Loop w/ Needle, 4.75 mm	
PEEK SwiveLock Suture Anchors w/ #2 FiberWire Suture, 4.75 mm, qty. 2	
Punch/Tap w/ AO Quick Connect	
Punch/Tap w/ Handle	
Drill Guide	
Drill Bit, 3.5 mm	
JumpStart Single-Layer Dressing, 2 in × 5 in	

BioComposite Achilles SpeedBridge Implant System

Product Description	Item Number
BioComposite SwiveLock Suture Anchor w/ #2 FiberWire Suture and FiberTape Loop w/ Needle, 4.75 mm	AR-8928BC-CP
BioComposite SwiveLock Anchor w/ #2 FiberWire Suture and TigerTape Loop w/ Needle, 4.75 mm	
BioComposite SwiveLock Suture Anchors w/ #2 FiberWire Suture, 4.75 mm, qty. 2	
Punch/Tap w/ Handle	
Drill Guide	
Drill, 3.5 mm	

PEEK Achilles SpeedBridge Implant System

Product Description	Item Number
PEEK SwiveLock Suture Anchor w/ #2 FiberWire Suture and FiberTape Loop w/ Needle, 4.75 mm	AR-8928P-CP
PEEK SwiveLock Suture Anchor w/ #2 FiberWire Suture and TigerTape Loop w/ Needle, 4.75 mm	
PEEK SwiveLock Suture Anchors w/ #2 FiberWire Suture, 4.75 mm, qty. 2	
Punch/Tap w/ Handle	
Drill Guide	
Drill, 3.5 mm	

References

1. Arthrex, Inc. Data on file (APT-01462, APT-00924, APT-01140). Naples, FL; 2020.
2. Rigby RB, Cottom JM, Vora A. Early weightbearing using Achilles suture bridge technique for insertional Achilles tendinosis: a review of 43 patients. *J Foot Ankle Surg.* 2013;52(5):575-9. doi:10.1053/j.jfas.2012.11.004
3. Park SS, Kim H, Makin IR, Skiba JB, Izadjoo MJ. Measurement of microelectric potentials in a bioelectrically-active wound care device in the presence of bacteria. *J Wound Care.* 2015;24(1):23-33. doi:10.12968/jowc.2015.24.1.23
4. Banerjee J, Das Ghatak P, Roy S, et al. Improvement of human keratinocyte migration by a redox active bioelectric dressing. *PLoS One.* 2014;9(3):e89239. doi:10.1371/journal.pone.0089239



This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

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