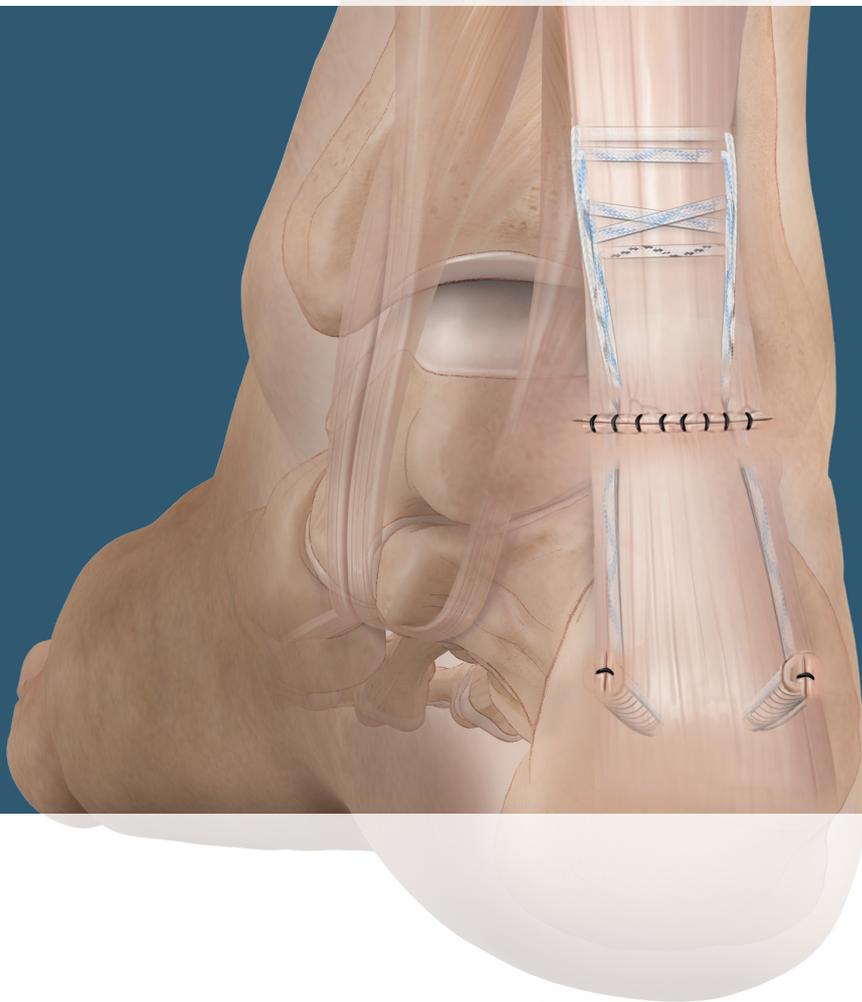


Achilles PARS SutureTape With Achilles Midsubstance SpeedBridge™ Implant System

Surgical Technique



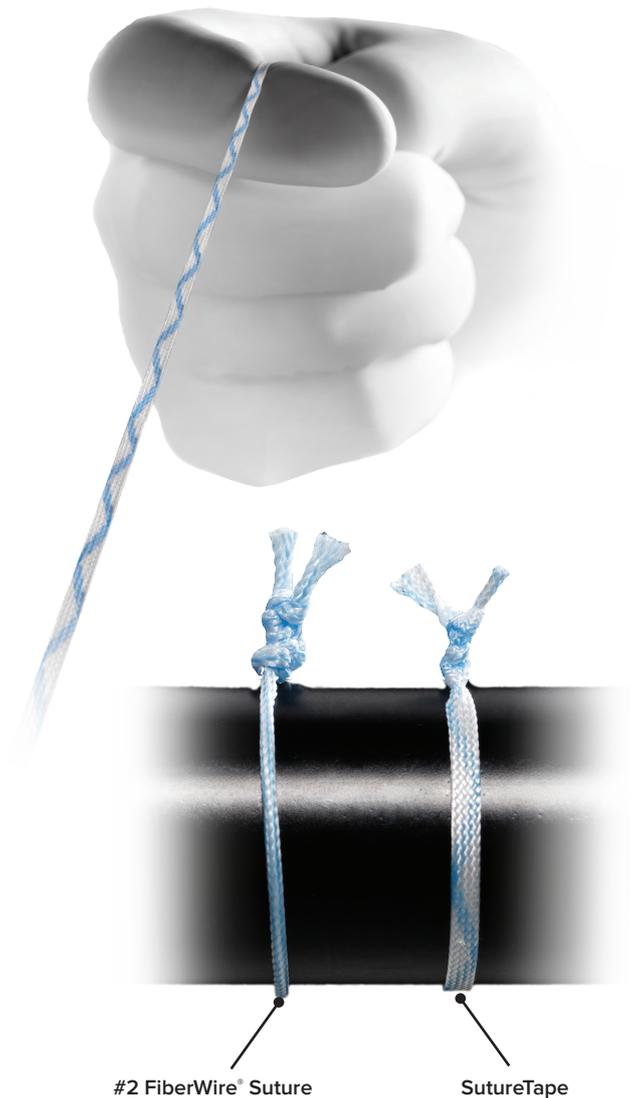
Achilles PARS SutureTape With Achilles Midsubstance SpeedBridge™ Implant System

The PARS SutureTape implant system is a percutaneous, minimally invasive technique used to repair Achilles tendon ruptures. Using color-coded 1.3 mm SutureTape, the PARS system makes it easy to create a percutaneous locking stitch in the Achilles tendon, while staying inside the paratenon sheath.

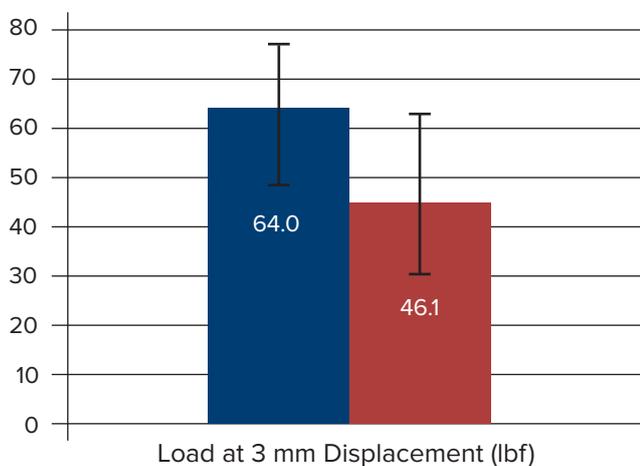
PARS SutureTape works with the PARS jig, a minimally invasive instrument that allows for percutaneous passage of SutureTape without a large extensile incision. The PARS SutureTape technique can be performed with a knotless construct by fixing the SutureTape in the proximal tendon and using the Achilles Midsubstance SpeedBridge implant system with SwiveLock® anchors for distal fixation in the calcaneus.

SutureTape Compared to #2 Suture

- Feels flat out better than round suture
- Increased resistance to tissue pull-through¹
- Stronger knotted and knotless fixation¹
- Tighter, smaller knot stacks
- Better handling characteristics

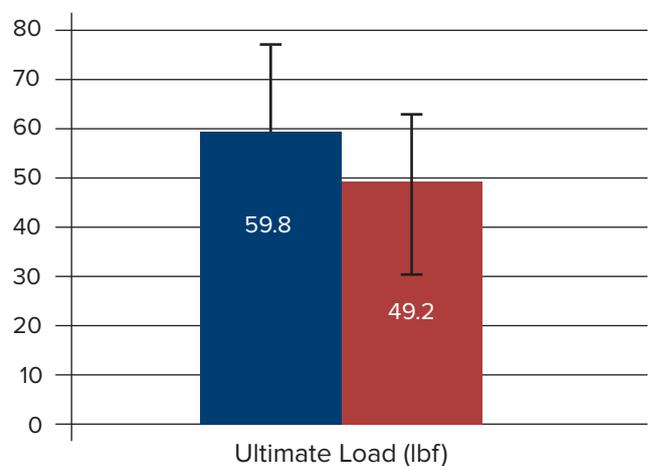


Load at 3 mm Displacement¹

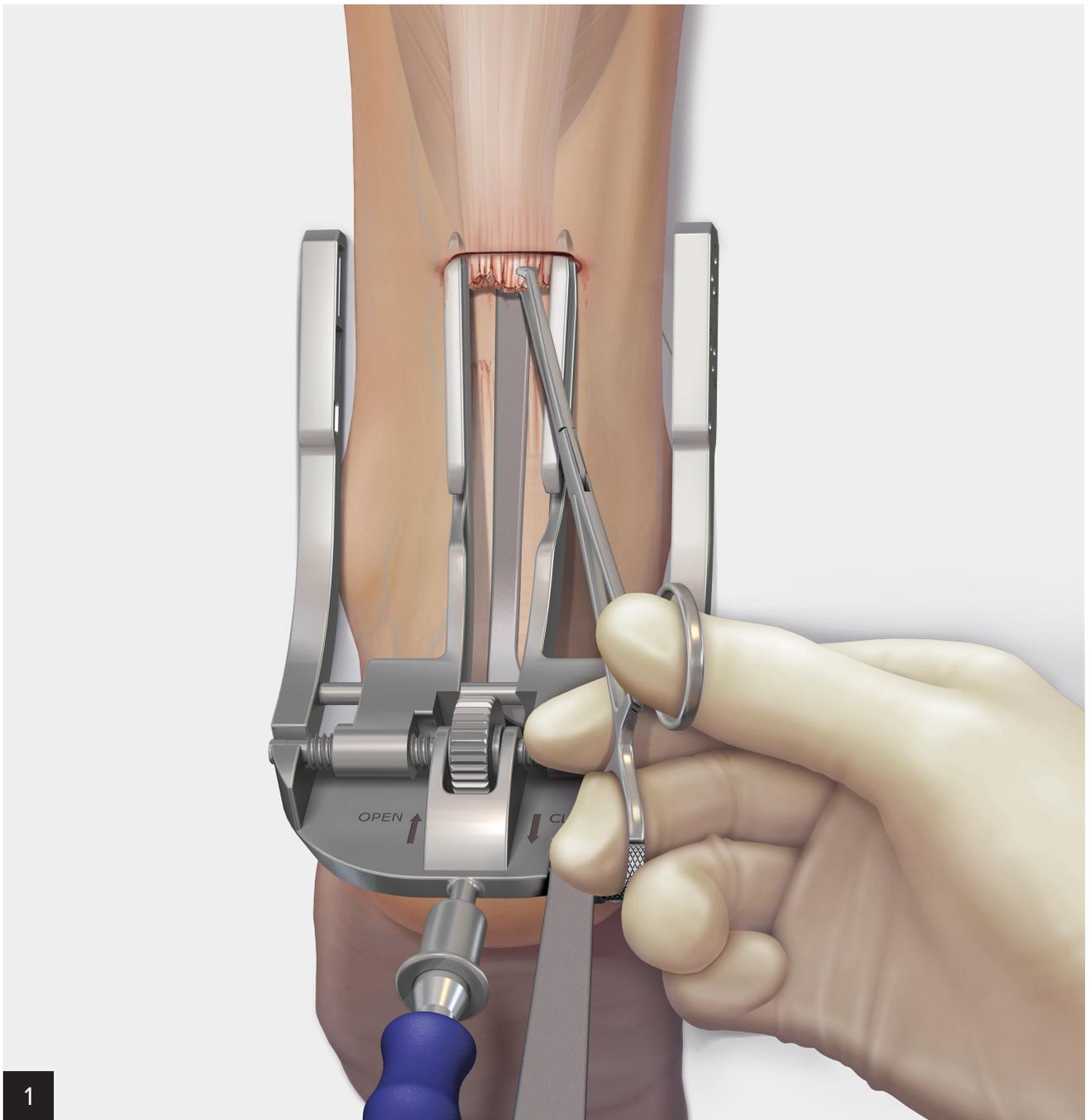


- 1.3 mm SutureTape
- #2 FiberWire Suture

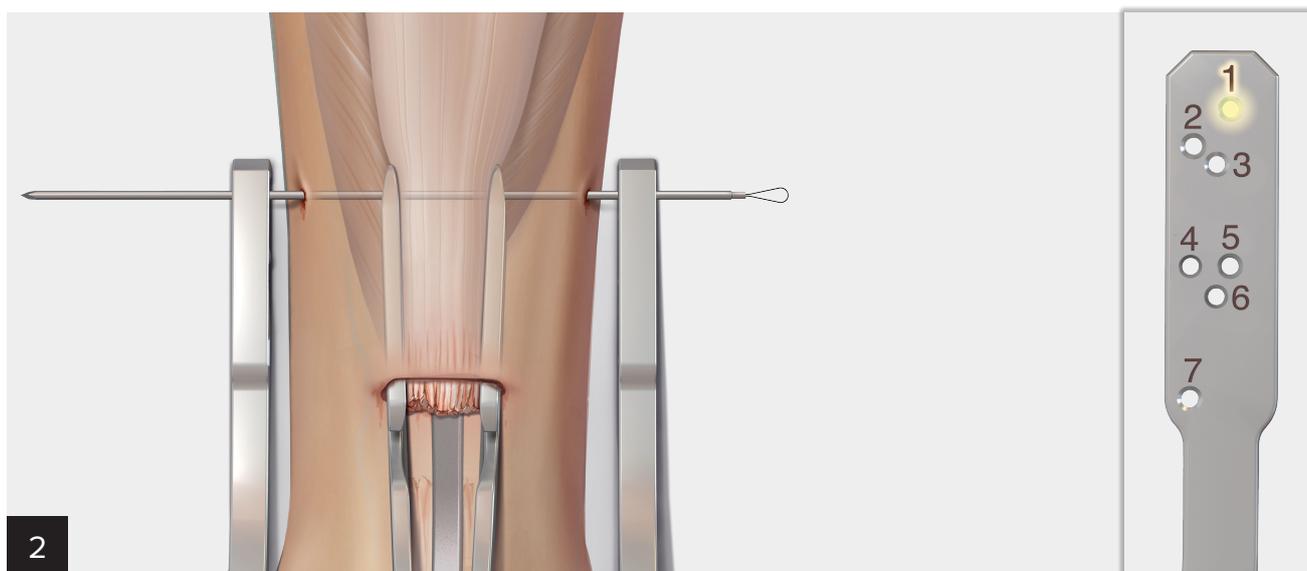
Tissue Pull-Through Ultimate Loads¹



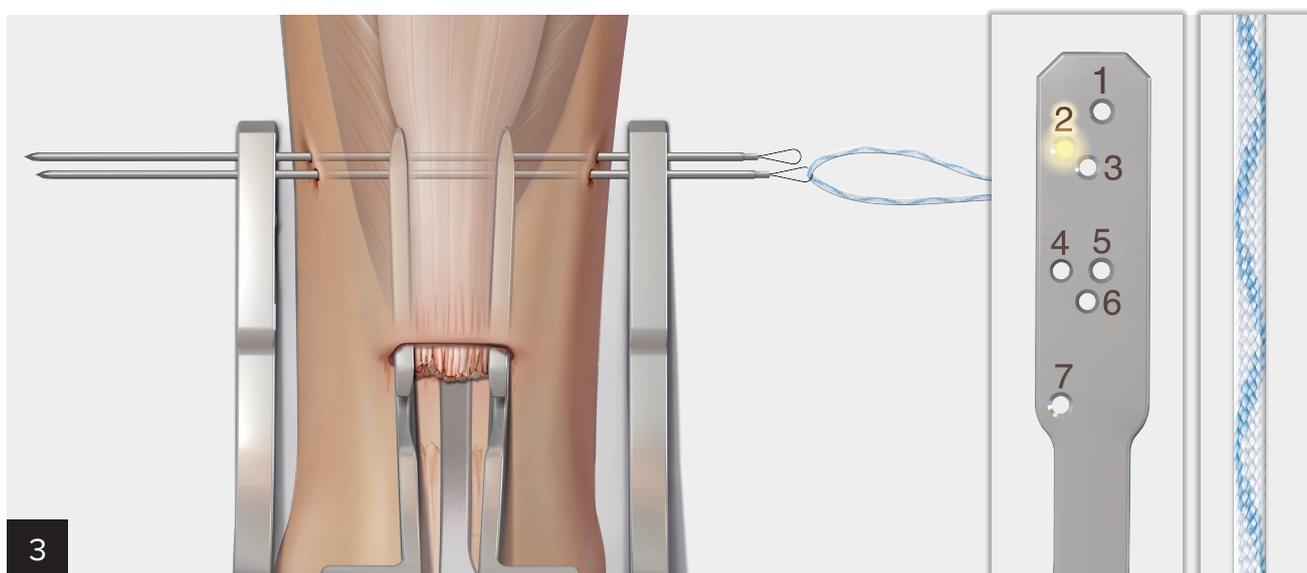
- 1.3 mm SutureTape
- #2 FiberWire Suture



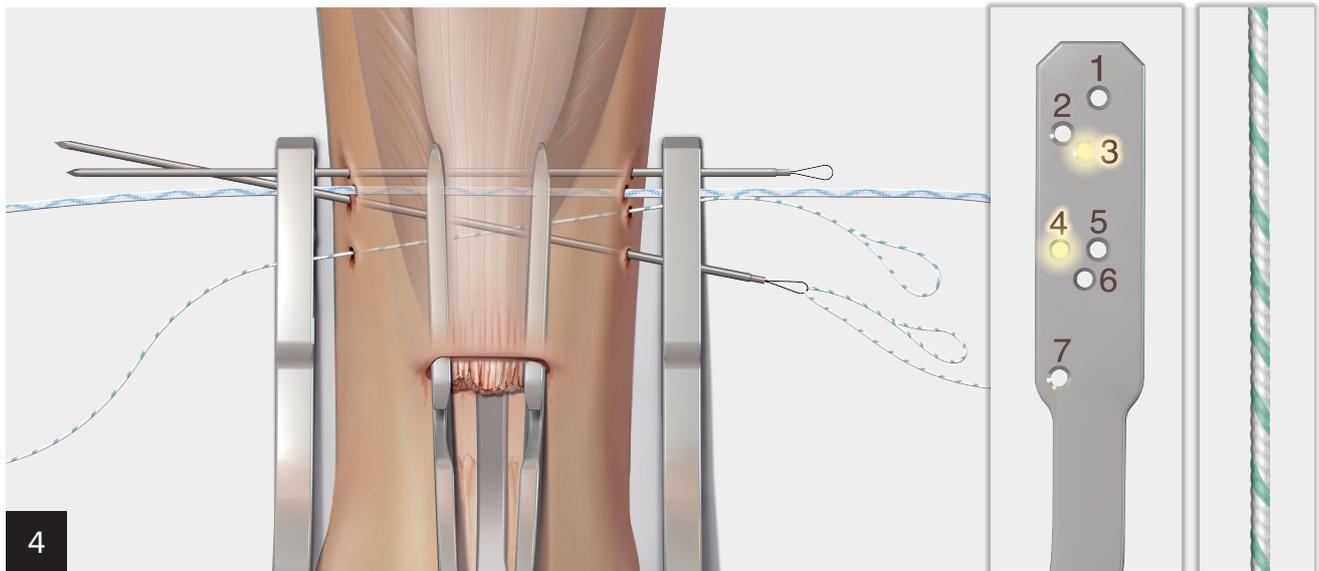
1 Make a percutaneous incision just proximal to the tendon rupture and insert the inner arms of the PARS jig in the paratenon of the Achilles tendon.



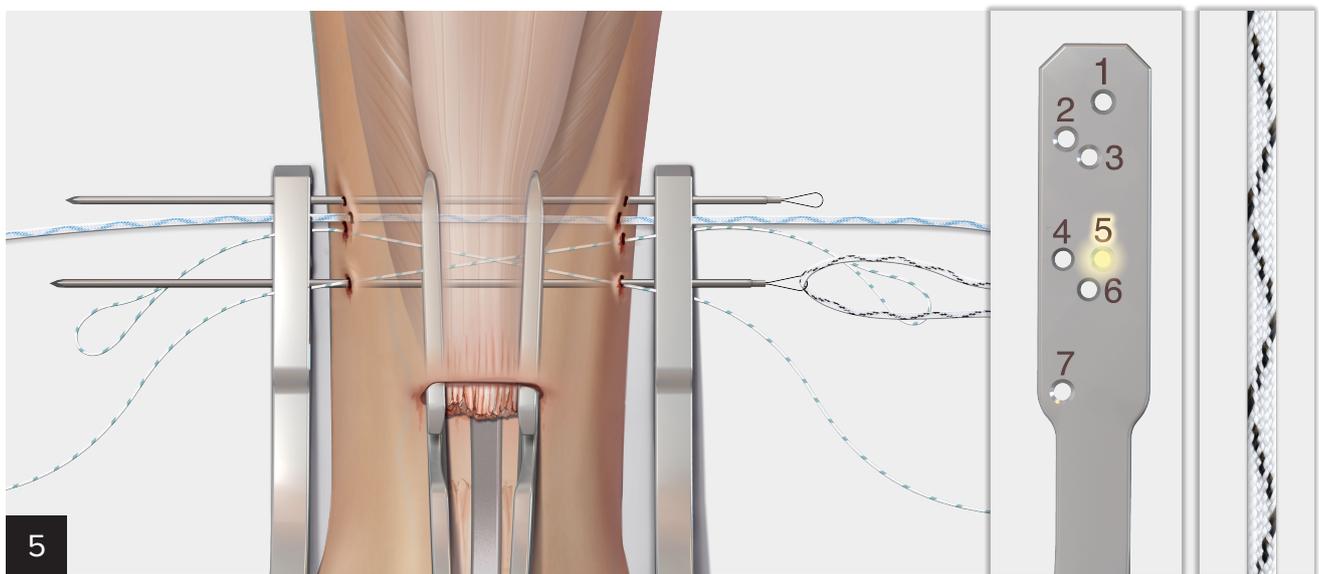
Pass the PARS needle with the Nitinol loop through the #1 hole. Place manual pressure on the tendon while passing the PARS needle to enhance central placement of the SutureTape. Leave the #1 PARS needle in the #1 spot of the jig to stabilize the construct while passing all other suture and SutureTape, and pass the #1 white SutureTape last.



Pass the PARS needle with the Nitinol loop through the #2 hole. Pull the **blue/white** SutureTape through the leg, leaving tails of equal length on both sides.

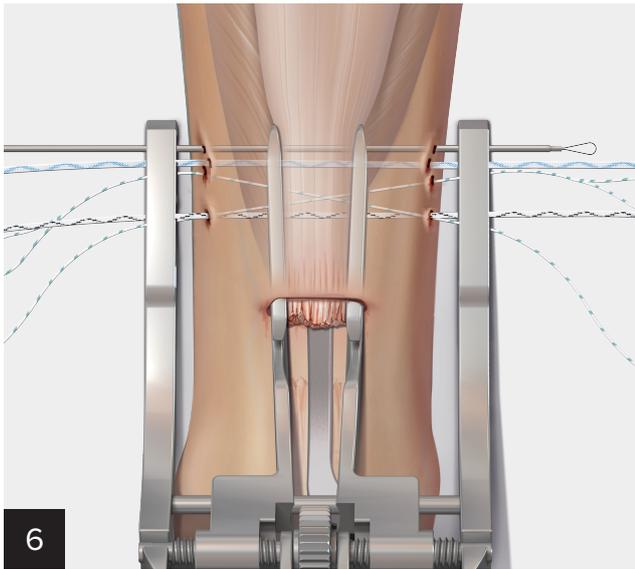


Pass the PARS needle with the Nitinol loop through the #3 and #4 holes. Pull the **green/white** FiberLink™ suture with loops through the leg, leaving tails of equal length on both sides. Make sure there is a looped end on each side of the leg.

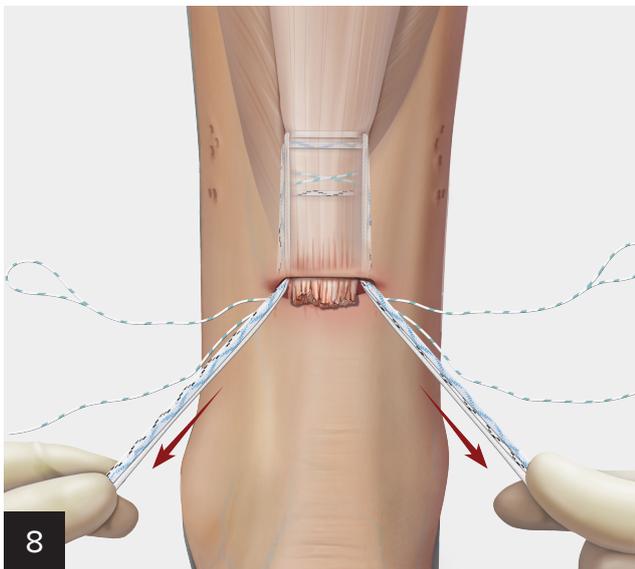
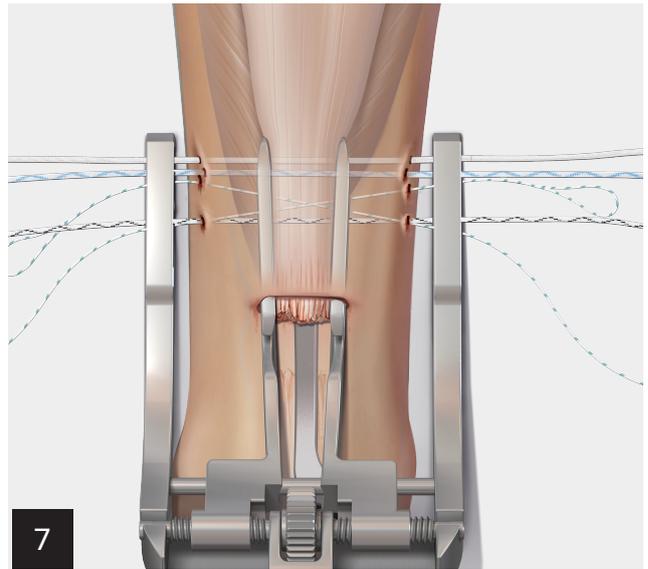


Pass the PARS needle with the Nitinol loop through the #5 hole. Pull the **black/white** SutureTape through the leg, leaving tails of equal length on both sides.

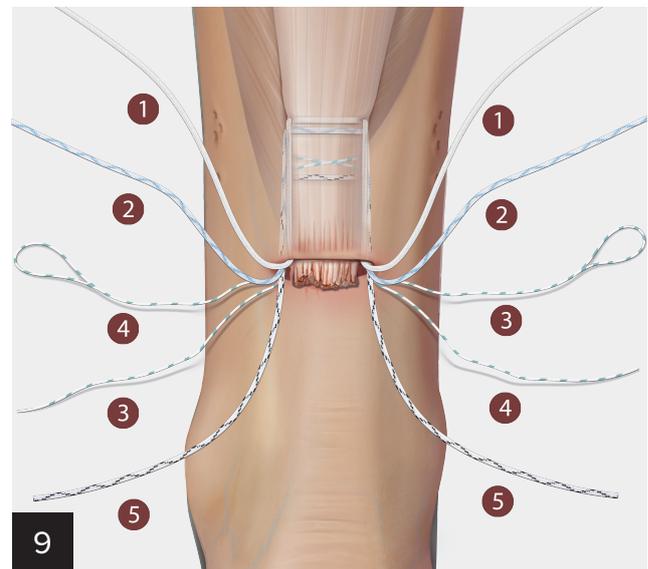
Achilles PARS SutureTape With Achilles Midsubstance SpeedBridge™ Implant System



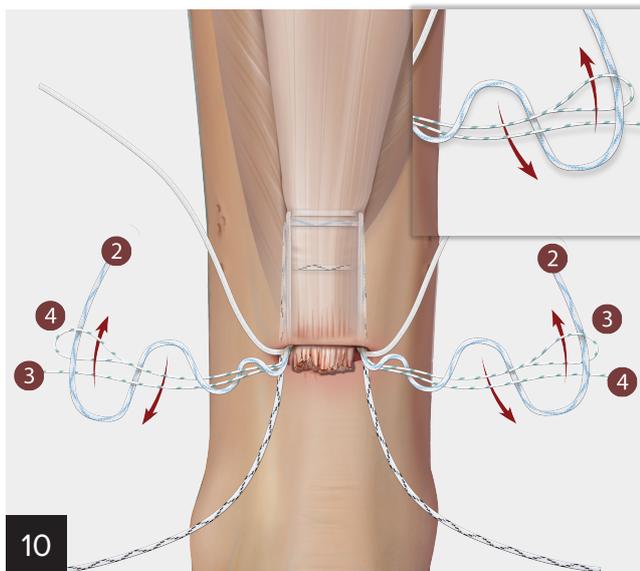
Load white SutureTape in the #1 PARS needle and pass through the tendon.



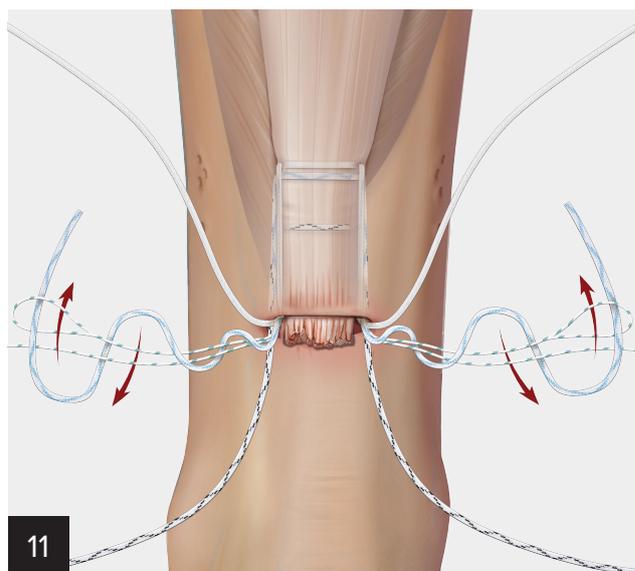
Remove the jig.



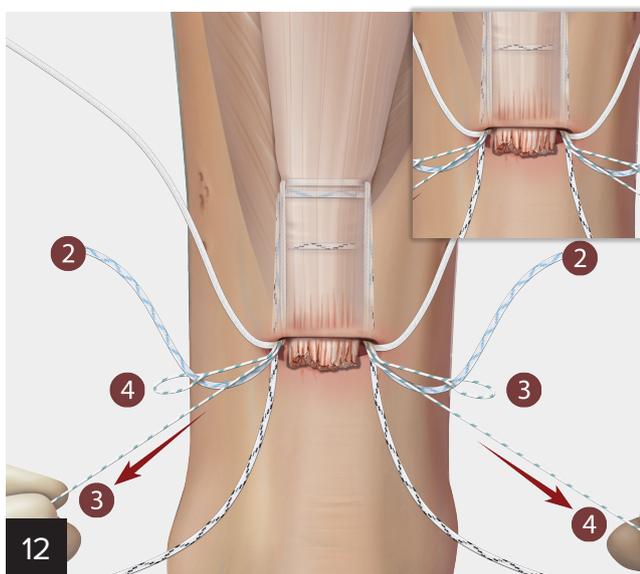
Organize the sutures the way they were originally placed through the PARS jig. Pull each end of the SutureTape 10 times to ensure all creep is removed from the construct.



Pass the blue/white SutureTape UNDER AND AROUND the #3 and #4 (green/white) FiberLink™ sutures TWICE and then through the loop of the green/white FiberLink suture.



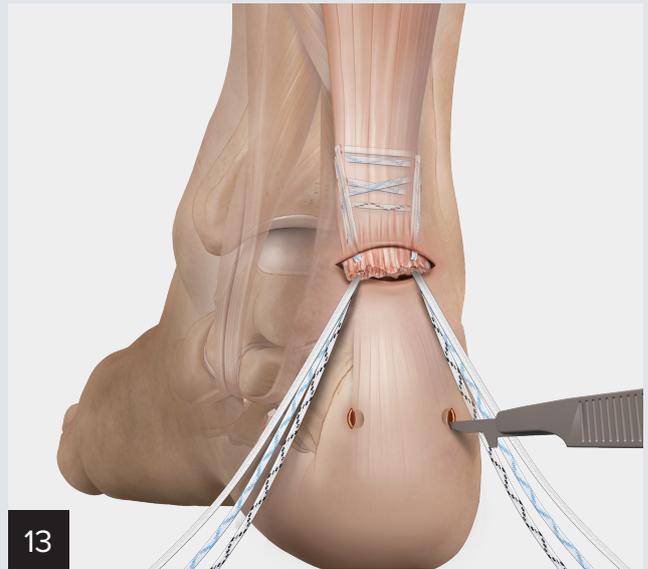
Pull the blue/white SutureTape through the Achilles tendon to the other side by pulling on the non-looped side of the green/white looped sutures (#3 and #4).



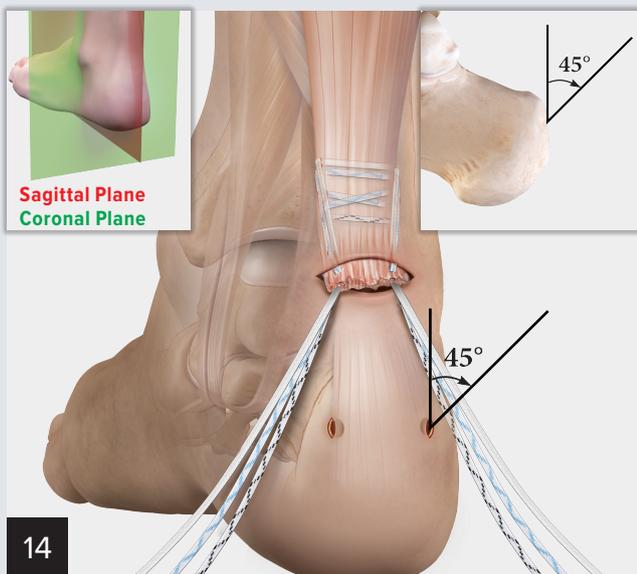
Pull on the blue/white SutureTape to lock the stitch in place. Two transverse sutures (#1 and #5) and 1 locked suture (#2) are now left.

Technique Variations – Option 1 (Achilles Midsubstance SpeedBridge™ Repair – Knotless)

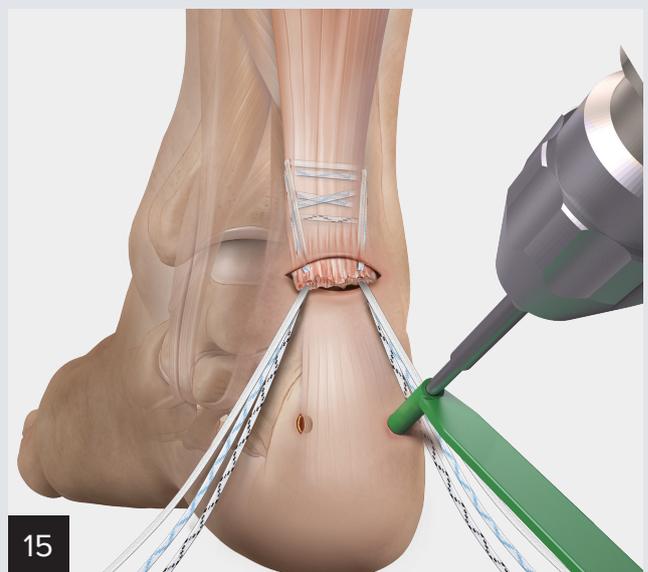
Two alternative surgical technique options are presented on the following pages. Perform steps 1-12 as described in the general technique before transitioning to the alternate steps listed here.



Make incisions 1 cm below the superior aspect of the posterior calcaneal tuberosity, medial and lateral to the Achilles tendon.

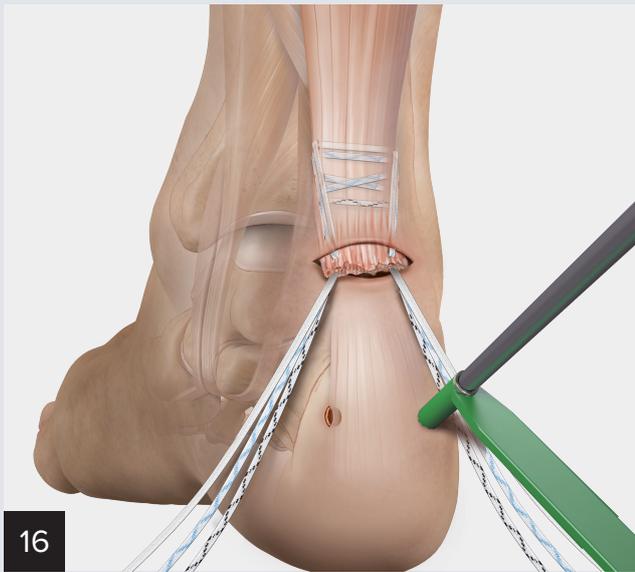


Within these stab incisions, insert the drill guide down to the bone and drill to the hard stop with the 3.5 mm drill at 45° from the centerline of the Achilles in the coronal plane and 45° from posterior to anterior (sagittal plane).

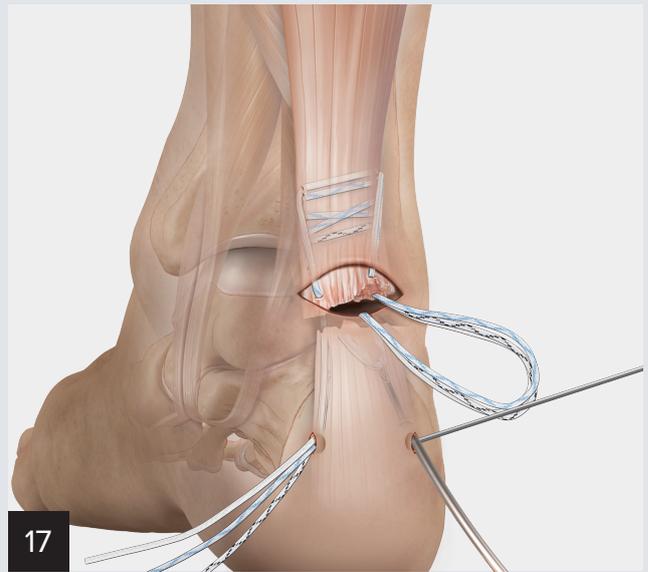


Drill with a 3.5 mm drill and tap with the 4.75 mm tap to prepare the holes for the SwiveLock® anchor.

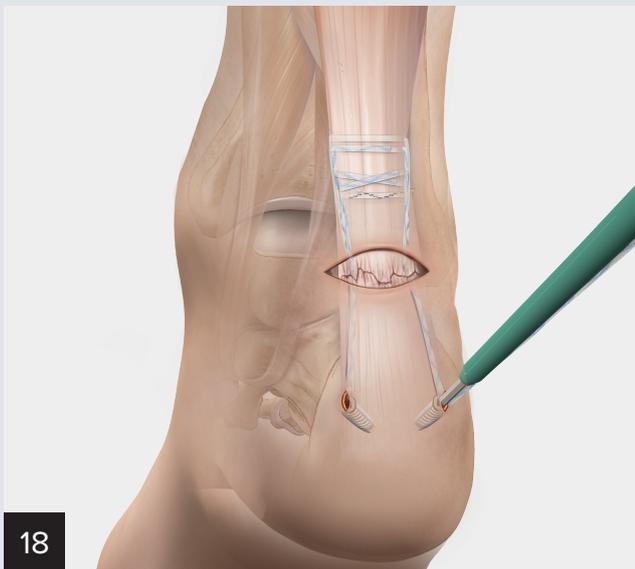
Technique Variations – Option 1 (Achilles Midsubstance SpeedBridge™ Repair – Knotless)



Use a 4.75 mm tap to prepare the holes for the SwiveLock® anchor.



With the PARS passing wires in the prepared bone tunnels, pass the Banana SutureLasso™ suture through the distal Achilles tendon and retrieve the proximal SutureTape.



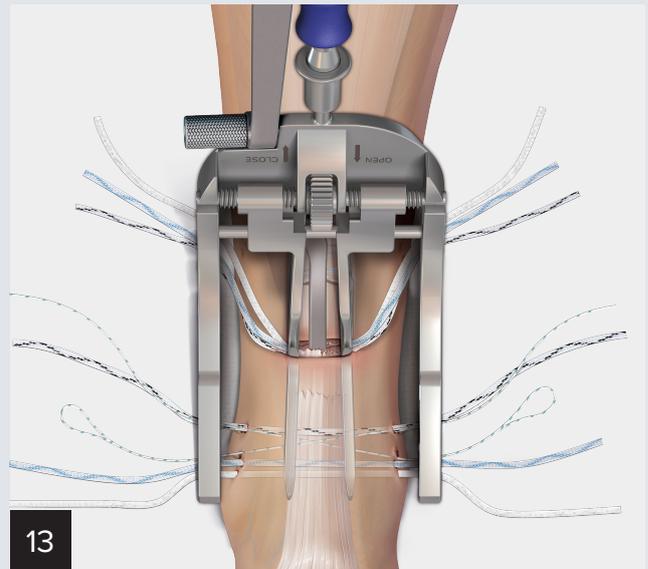
Secure the SutureTapes to the distal Achilles with two 4.75 mm SwiveLock® anchors with the foot in 10-15° greater plantar flexion than the resting position of the contralateral foot. Pay careful attention to the contralateral side to ensure that appropriate tension is applied.



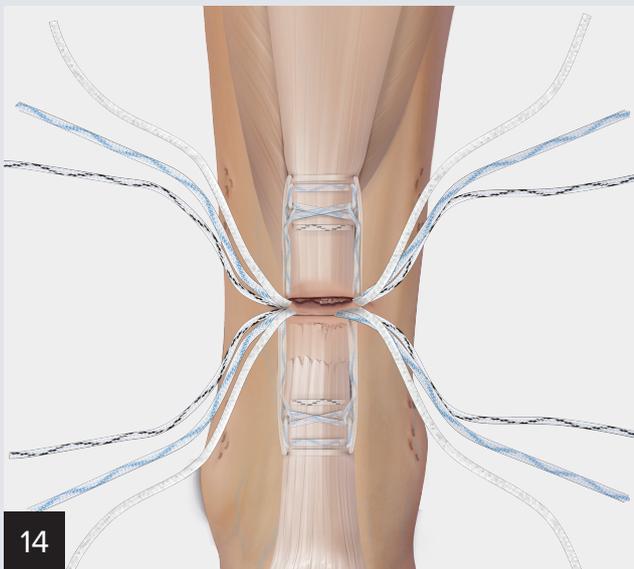
After final fixation, apply JumpStart® antimicrobial wound dressing on the incision. JumpStart wound dressing kills a broad spectrum of harmful pathogens, including multidrug-resistant and biofilm-forming bacteria to help reduce the risk of infection.²⁻⁴

Technique Variations – Option 2 (PARS to PARS)

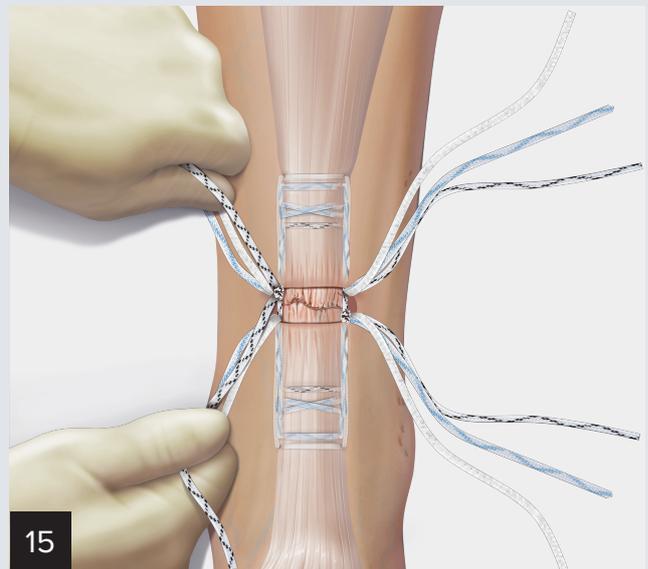
The second alternative surgical technique option is presented on the following pages. Perform steps 1-12 as described in the general technique before transitioning to the alternate steps listed here.



Place the jig in the distal part of the incision and perform the exact steps as for the proximal side of the tendon.

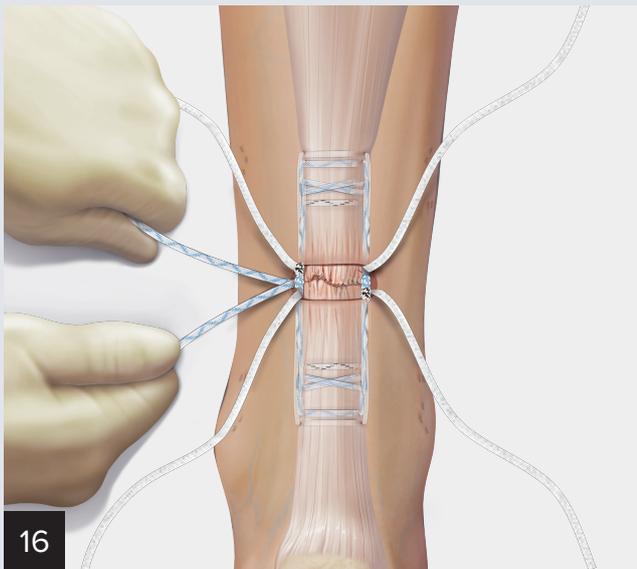


Three sutures remain proximally and 3 distally, ready for reapproximation of the tendon.

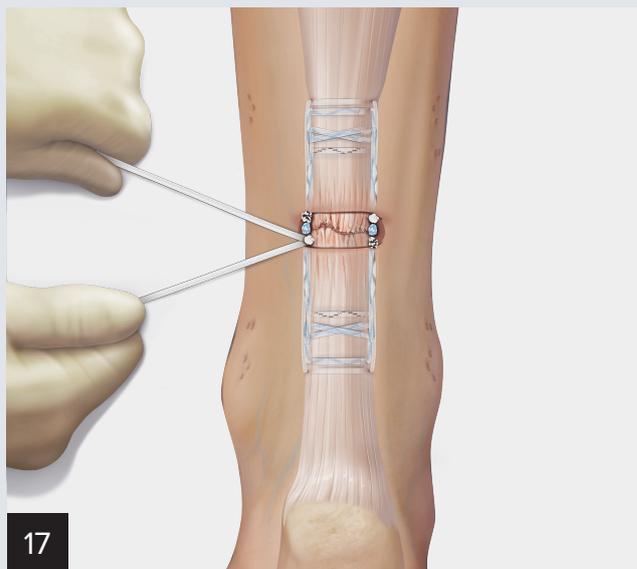


Tension appropriately, comparing to the contralateral foot, and tie the black/white SutureTape first on both sides of the leg. Three (3) to 4 surgeon's knots are recommended. **Note: The first side tied is the "stay" stitch and will slide. Lock this knot down when tying the other side.**

Technique Variations – Option 2 (PARS to PARS)



Tension appropriately, comparing to the contralateral foot, and tie the locked blue/white SutureTape on both sides of the leg. Three to 4 surgeon's knots are recommended.



Tension appropriately, comparing to the contralateral foot, and tie the white SutureTape last on both sides of the leg. Three to 4 surgeon's knots are recommended.



For the final repair, the wound can be closed with suture of choice. Postoperative routine is also surgeon's preference. Apply JumpStart® antimicrobial wound dressing on the incision to kill a broad spectrum of harmful pathogens, including multidrug-resistant and biofilm-forming bacteria to help reduce the risk of infection.²⁻⁴

Ordering Information

Achilles Midsubstance SpeedBridge™ Implant System

Product Description	Item Number
Achilles Midsubstance SpeedBridge Implant System	AR-8929BC-CP
SwiveLock® Anchors, 4.75 mm, qty. 2 Banana SutureLasso™ Suture Passer w/ Nitinol Wire Drill Bit, 3.5 mm Tap for 4.75 mm SwiveLock Anchor (AO) w/ Shoulder Stop Handled Tap for 4.75 mm SwiveLock Anchor (disposable) Drill Guide	



Achilles Midsubstance SpeedBridge Repair Kit – AR-8929BC-CP

PARS SutureTape Implant System

Product Description	Item Number
PARS SutureTape Implant System	AR-8862DS
Straight Needles w/ Nitinol Loops, 1.6 mm, qty. 3 FiberWire® SutureTape, white, 1.3 mm, qty. 2 FiberWire SutureTape, white/blue, 1.3 mm, qty. 2 FiberWire SutureTape, white/black, 1.3 mm, qty. 2 #2 FiberWire Suture, closed loop, white/green, qty. 2	



PARS SutureTape Implant System – AR-8862DS

PARS Achilles Jig Instrument Set

Product Description	Item Number
PARS Achilles Jig Instrument Set	AR-8860S
PARS Achilles Jig Driver Handle w/ AO Connection, cannulated PARS Achilles Repair Instrument Case	AR-8860J AR-13221AOC AR-8860C

PARS Achilles Jig Suture Set

Product Description	Item Number
PARS Achilles Jig Suture Set	AR-8860DS
#2 FiberWire Sutures, 38 in, white, qty. 2 #2 FiberWire Sutures, 38 in, blue, qty. 2 #2 TigerWire® Sutures, 38 in, white/black, qty. 2 #2 FiberWire Sutures, w/loops, 40 in, white/green, qty. 2 Straight Needles w/ Nitinol loops, 1.6 mm, qty. 3	



PARS Achilles Jig AR-8860J

Optional

Product Description	Item Number
PARS Tendon Elevator	AR-8860J-01
PARS Suture Hook Assembly	AR-8860SH



Tendon Elevator (optional) AR-8860J-01

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Supporting Products (for US only)

JumpStart® Single-Layer Dressing

Product Description	Item Number	Qty./Box
1 in × 1 in Fenestrated	ABS-4001	10
2 in × 2 in	ABS-4002	10
2 in × 5 in	ABS-4025	10
3 in × 3 in	ABS-4003	10
4 in × 4 in	ABS-4004	10
1.5 in × 8 in	ABS-4005	10
1.5 in × 10 in	ABS-4006	10
8 in × 8 in	ABS-4008	1
12 in × 12 in	ABS-4012	1

Products advertised in this brochure/surgical technique guide may not be available in all countries. For information on availability, please contact Arthrex Customer Service or your local Arthrex representative.



JumpStart
Single-Layer
Dressing

References

1. Arthrex, Inc. LA1-00038-EN_B. Naples, FL; 2017.
2. Kim H, Makin I, Skiba J, et al. Antibacterial efficacy testing of a bioelectric wound dressing against clinical wound pathogens. *Open Microbiol J*. 2014;21;8:15-21. doi:10.2174/1874285801408010015.
3. Kim H, Izadjoo MJ. Antibiofilm efficacy evaluation of a bioelectric dressing in mono- and multi-species biofilms. *J Wound Care*. 2015;24(Suppl 2):S10-4. doi:10.12968/jowc.2015.24.Sup2.S10.
4. Banerjee J, Das Ghatak P, Roy S, et al. Silver-zinc redox-coupled electroceutical wound dressing disrupts bacterial biofilm. *PLoS One*. 2015;10(3):e0119531. doi:10.1371/journal.pone.0119531.



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