Achilles PARS SutureTape Implant System

Surgical Technique
Achilles PARS SutureTape 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.

The 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 fixating 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-through
- Stronger knotted and knotless fixation
- Tighter, smaller knot stacks
- Better handling characteristics

![Graphs showing load at 3 mm displacement and tissue pull-through ultimate loads comparison between 1.3 mm SutureTape and #2 FiberWire Suture](image)

1. Graph data and statistics are provided for Load at 3 mm Displacement and Tissue Pull-Through Ultimate Loads.
Insert the inner arms of the PARS jig in the paratenon of the Achilles tendon after a percutaneous incision is made just proximal to the tendon rupture.
Pass the PARS needle with the Nitinol loop through the #1 hole. Pull the white SutureTape through the leg, leaving tails of equal length on both sides. Place manual pressure on the tendon while passing the PARS needle to enhance central placement of the SutureTape.

Optional clinical pearl: 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 SutureTape with loops are 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.
6. Pull the blue/white SutureTape through the Achilles tendon to the other side by pulling on the nonlooped side of the green/white looped sutures (#3 and #4).

7. Organize the sutures the way they were originally placed through the PARS jig.

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

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

10. Pull on the blue/white SutureTape to lock the stitch in place. Two (2) transverse sutures (#1 and #5) and 1 locked suture (#2) are now left.
Make 2 stab incisions 1.5 cm apart over the calcaneus just distal to the Achilles tendon insertion.

Drill to the hard stop with the 3.5 mm drill using the drill guide.

Use the tap to prepare the holes for the SwiveLock® anchors.

Two alternative surgical technique options are presented on the following pages. Perform steps 1-10 as described in the general technique before transitioning to the alternate steps listed here.
Surgical Technique

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Pass the Banana SutureLasso™ suture passer through distal Achilles tendon and retrieve the proximal SutureTape.

15
Insert the 4.75 mm SwiveLock anchors. Tension appropriately, comparing to the contralateral foot.

16
For 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.\(^{24}\)
Technique Variations – Option 2

PARS to PARS

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

Three (3) 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.

Tension appropriately, comparing to the contralateral foot, and tie the locked blue/white SutureTape on both sides of the leg. Three (3) 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 (3) to 4 surgeons’ knots are recommended.

For the final repair construct, the wound can be closed with suture of choice. Postoperative routine is also surgeon’s preference. 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.
Ordering Information

Achilles Midsubstance SpeedBridge™ Implant System (AR-8929BC-CP)
SwiveLock® Anchors, 4.75 mm, qty. 2
Banana SutureLasso™ Suture Passer with Nitinol wire
Drill Bit, 3.5 mm
Tap for 4.75 mm SwiveLock Anchor (AO) w/ shoulder stop
Drill Guide

PARS SutureTape Implant System (AR-8862DS)
PARS Needles, 1.6 mm, qty.2
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 Achilles Jig Instrument Set (AR-8860S)
PARS Achilles Jig AR-8860J
Driver Handle w/ AO Connection, cannulated AR-13221AOC
PARS Achilles Repair Instrument Case AR-8860C

PARS Achilles Jig Suture Set (AR-8860DS)
#2 FiberWire Sutures, 38”, white, qty. 2
#2 FiberWire Sutures, 38”, blue, qty. 2
#2 TigerWire® Sutures, 38”, white/black, qty. 2
#2 FiberWire Sutures, w/loops, 40”, white/green, qty. 2
1.6 mm Straight Needles w/Nitinol loops, qty. 2

Optional
PARS Tendon Elevator AR-8860J-01

PARS Suture Hook Assembly AR-8860SH

PARS Achilles Jig AR-8860J
PARS Achilles Jig Suture Set AR-8860DS

Achilles Midsubstance SpeedBridge Repair Kit – AR-8929BC-CP
## Supporting Products (For US Only)

### JumpStart® Single-Layer Dressing

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## References

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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