

# Anterior Tibialis Tendon Transfer Using DX Button and Tension-Slide Technique

Surgical Technique



# Anterior Tibialis Tendon Transfer Using DX Button and Tension-Slide Technique

Anterior tibialis tendon transfer using the DX button and tension-slide technique allows the surgeon to tension the anterior tibialis through a single dorsal incision. The combination of cortical button fixation and a BioComposite Tenodesis screw allows for a precise and strong anatomic construct.<sup>1</sup>

## Advantages

- Less tendon harvest graft
- Maximize tendon-to-bone contact
- Low-profile fixation
- No plantar poke hole or incision
- Excellent (299N) ultimate load to failure<sup>1</sup>
- Less dissection

## Procedures

- Anterior tibialis tendon transfer
- Anterior tibialis reconstruction

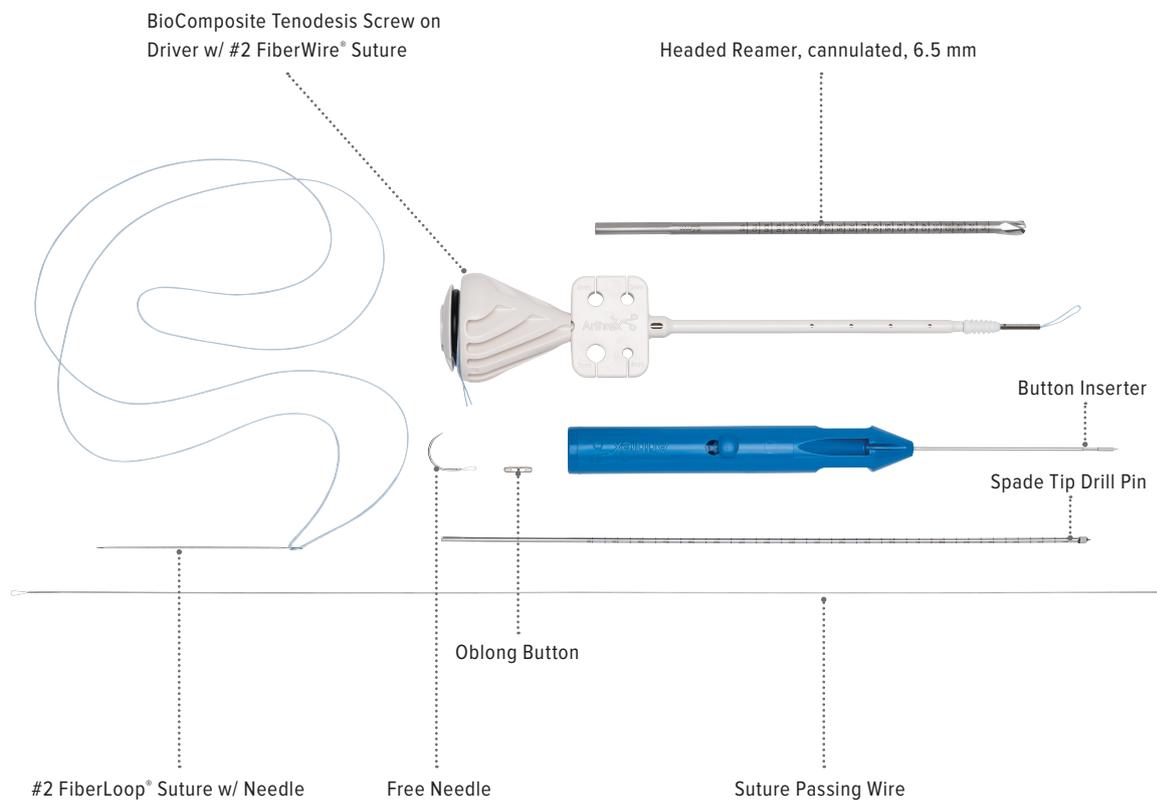
## Other Techniques

- Posterior tibialis tendon transfer
- FHL tendon transfer

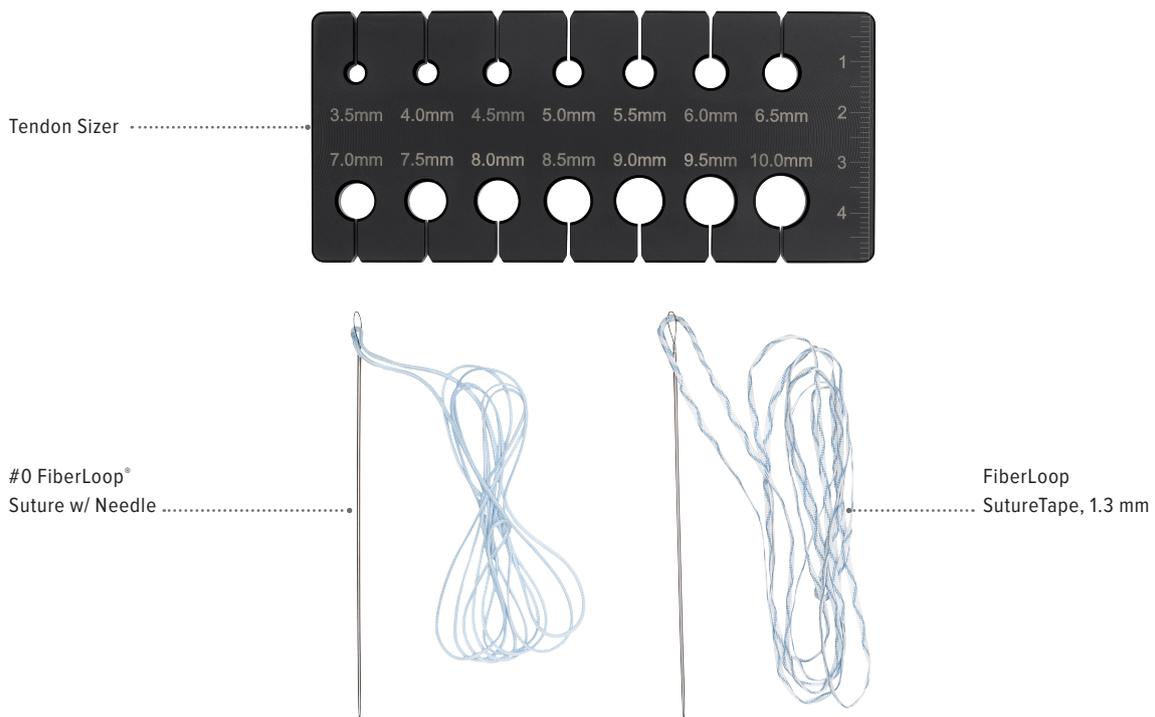
### Reference

1. Arthrex, Inc. Data on file (APT 04032). Naples, FL; 2018.

## FHL Implant System, 6.25 mm



## Tenodesis Graft Sizing Kit



## Anterior Tibialis Tendon Transfer Using DX Button and Tension-Slide Technique

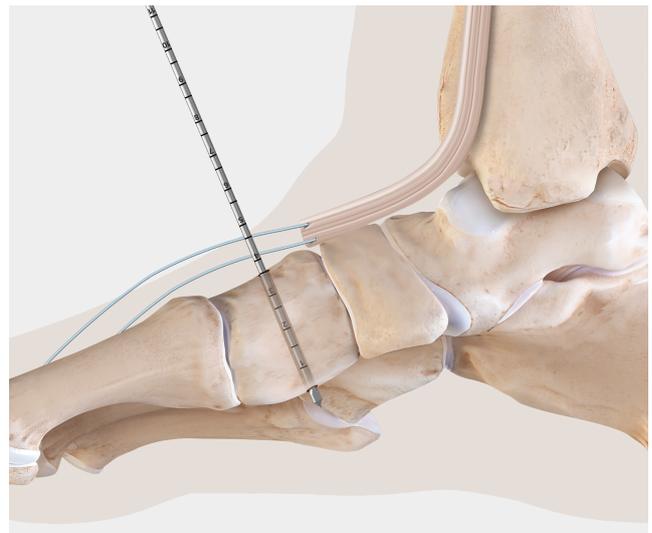


Place the patient in supine position on the operating table under general anesthesia with a tourniquet used per surgeon discretion. Make a small 3 mm to 5 mm incision above the superior extensor retinaculum. Leave the extensor retinaculum intact if possible to avoid adhesion of the tendons.

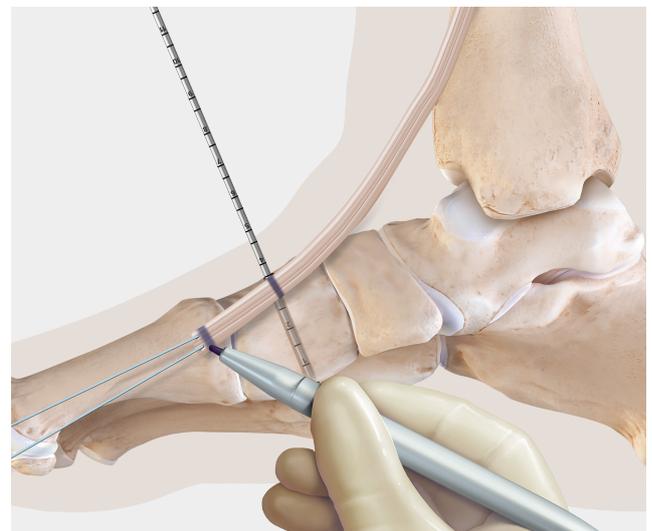
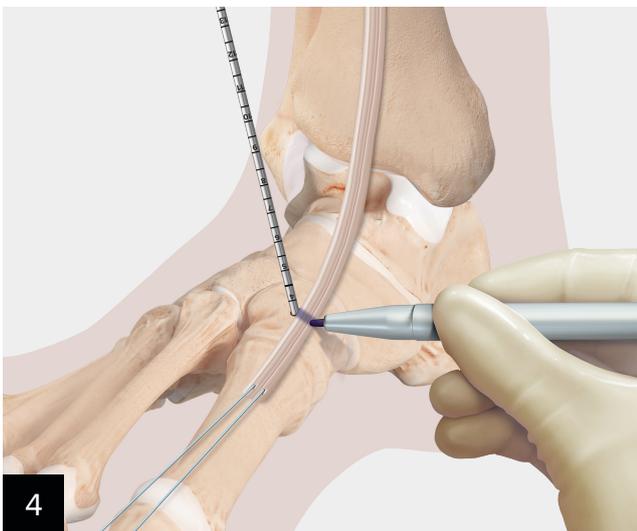


Place a traction suture through the tendon using a #2 FiberWire® suture or #2 FiberLoop suture. Use the traction suture to size the tendon through one of the holes on the tendon sizer. Based on the tendon diameter, open the 6.25 × 15 mm implant system.

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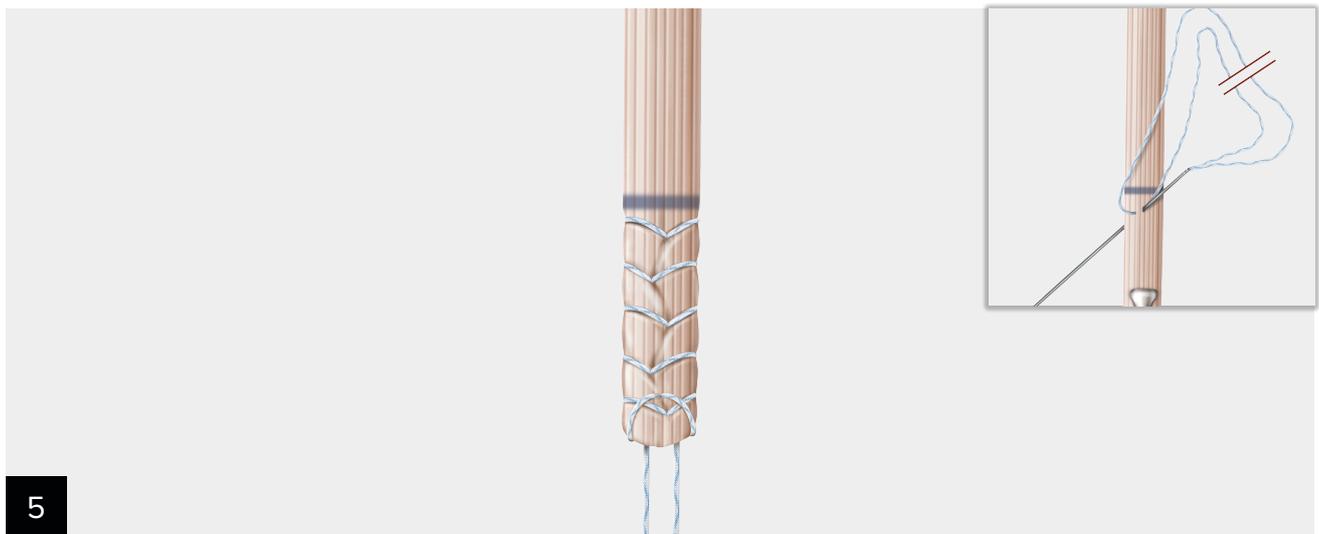


Dorsally and centralized on the medial cuneiform, drill the 3.2 mm spade tip pin perpendicularly and bicortically. **Note: Recommended to use fluoroscopy and to have the 3.2 mm spade tip pin just breach the plantar cortex.**

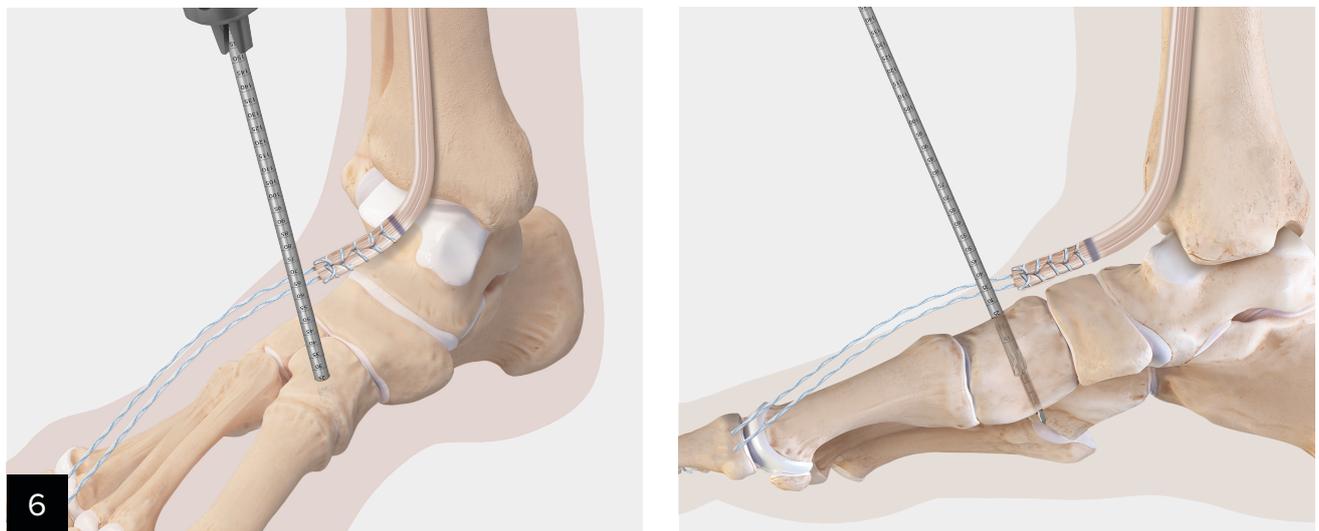


Pull traction stitch so that the anterior tibialis tendon is at appropriate tension at the interface of the bone and the 3.2 mm drill pin. Use a marking pen and mark at the level the surgeon wants tensioned in the hole and then another mark 15 mm distal for the 6.25 implant system to be used.

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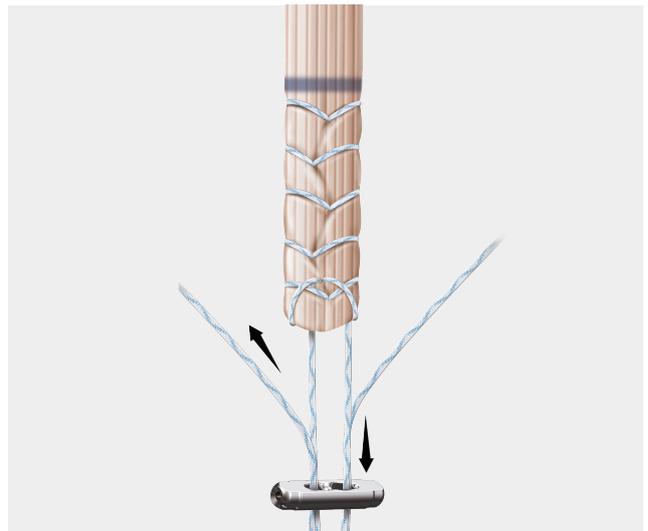
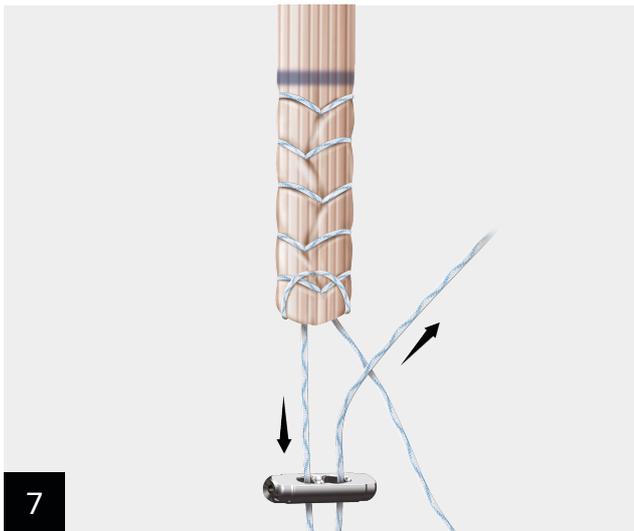


An Allis clamp can be used to speed whipstitch with FiberLoop® SutureTape and lock the sutures by making the final pass proximal to the previous pass and having the needle exit through distal tip of tendon. Cut the FiberLoop suture near the needle to provide long suture limbs to pass through the DX button. Remove the traction stitch and any tendon past the second mark and bulletize the tip of the tendon.

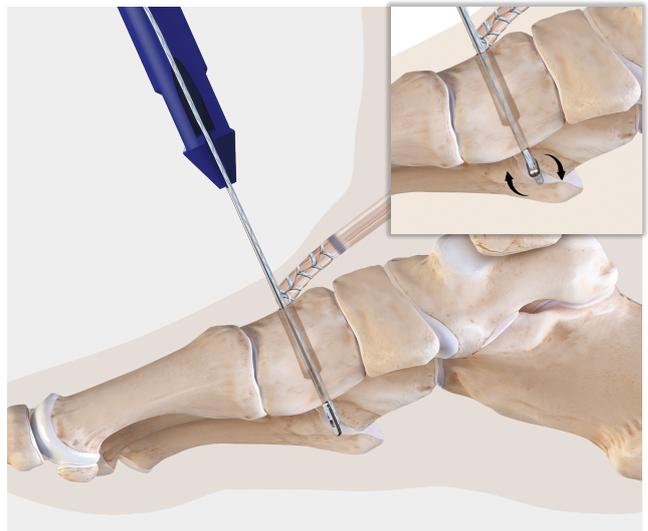


Drill with the reamer in the implant system 17 mm to 20 mm for the 6.25 mm tenodesis screw, making sure not to violate the plantar cortex. Remove spade tip drill pin and irrigate to remove bone debris.

## Anterior Tibialis Tendon Transfer Using DX Button and Tension-Slide Technique



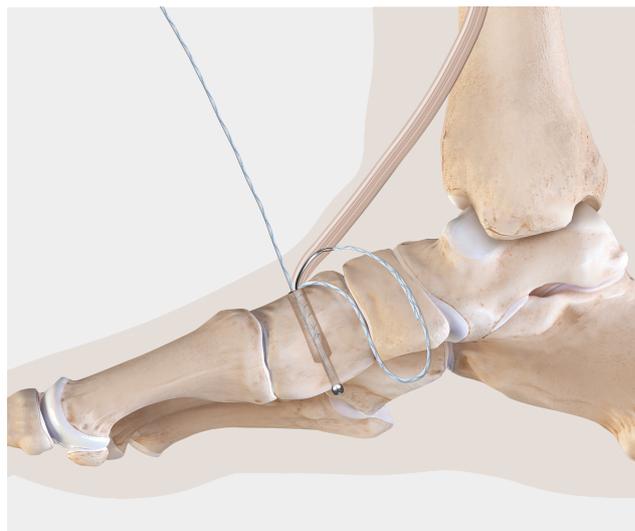
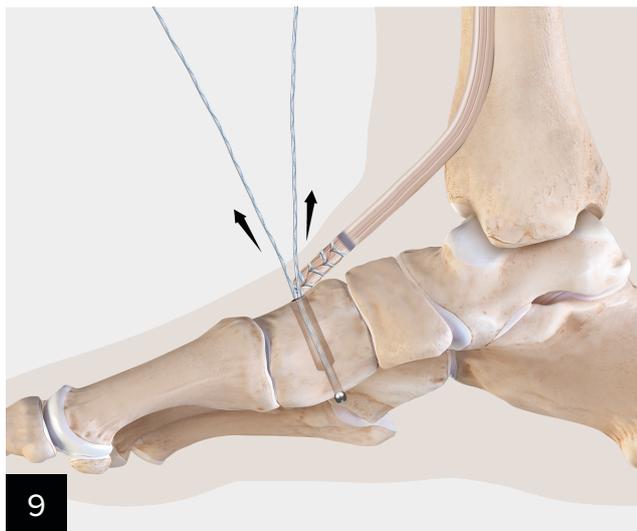
Thread one suture limb from the tendon whipstitch through one side of the 12 mm DX button and back through the opposite side with a straight needle. Thread the other suture limb through in the same manner, starting on the opposite side from the first limb. Make sure the suture limbs are not tangled by pulling each limb and ensuring the button slides freely.



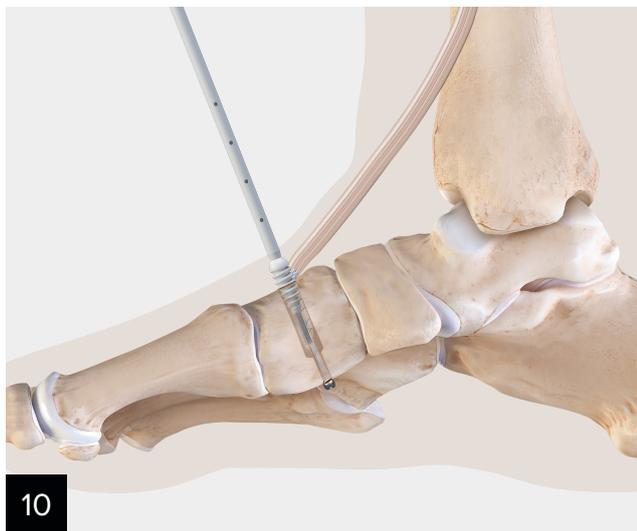
Hold tension on both suture limbs and insert the tip of the button inserter into the button. Hold tension on the sutures and insert the button through the medial cuneiform from dorsal to plantar under fluoroscopy, ensuring it is deployed through both cortices. Pull back on the blue button on the inserter handle to release the button.

**Note:** Leave the button inserter in the hole when pulling tension back on the button.

## Anterior Tibialis Tendon Transfer Using DX Button and Tension-Slide Technique



Lightly pull on the suture to ensure the button has flipped on the opposite cortex of the medial cuneiform. Use fluoroscopy to confirm button deployment and appropriate position, ensuring the button is resting against the cortex of bone. Grasp each limb of the suture and slowly apply tension to dock the tendon into the bone tunnel. Once the tendon is fully seated, use the free needle to pass one suture limb through the tendon and then tie 3 or 4 knots.



Insert the 6.25 mm Tenodesis screw into the bone tunnel next to the tendon to secure it. Make sure the screw sits flush with the cortex. Cut the excess suture.

## Post-op Protocol

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Postoperatively, place the patient in a posterior and stirrup splint with the foot in plantar flexion but with enough tension on the transferred tendon to improve collagen alignment. After wound healing, the splint can be removed and active dorsi- and plantar flexion can begin as permitted. Weightbearing is generally delayed for 4 to 6 weeks per surgeon discretion.

## Ordering Information

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### FHL Implant System, 6.25 mm

Product Description	
Oblong Button, 2.6 mm × 12 mm	AR-1562BC-CP
BioComposite Tenodesis Screw on Driver w/ #2 FiberWire® Suture, 6.25 mm × 15 mm	
Spade Tip Drill Pin, 3.2 mm	
Headed Reamer, cannulated, 6.5 mm	
#2 FiberLoop® Suture w/ Needle, blue	
Free Needle	
Suture Passing Wire	
Button Inserter	

### Disposables Kit

Product Description	
Tenodesis Graft Sizing Kit w/ FiberLoop SutureTape Tendon Sizer	AR-1676ST
#0 FiberLoop w/ Needle, blue	
FiberLoop SutureTape, 1.3 mm	



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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