

# FiberStitch™ 1.5 All-Inside Meniscal Repair

Surgical Technique



**Arthrex**® 

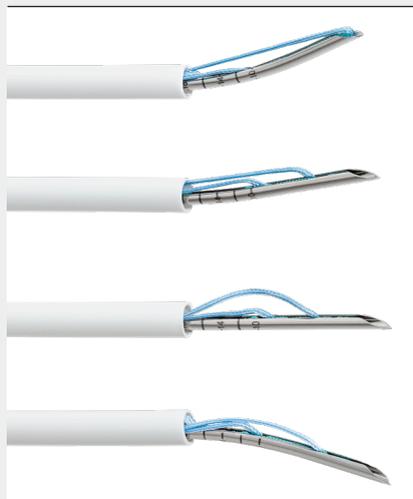
# FiberStitch™ 1.5 Implant

The FiberStitch 1.5 implant is the product of relentless innovation. A low-profile delivery needle results in less tissue morbidity and smaller implants, providing stronger fixation compared to previous FiberStitch implants.<sup>1</sup> The proven superiority of FiberStitch all-suture anchors for all-inside meniscal repair is evident when compared to traditional PEEK implant systems.<sup>2</sup> Made with 2-0 coreless FiberWire® suture, soft anchors provide secure arthroscopic all-inside knotless meniscal repair.

In addition to a traditional curved delivery device, the FiberStitch 1.5 implant system offers multiple delivery configurations, including a 24° curve, a reverse curve, and a straight needle. All options can be customized for specific curvatures, and the ergonomic handle is designed for single-handed implant delivery. Active implant-deployment technology minimizes needle exposure beyond the meniscus, eliminating the need to past-point the needle.

**One-Handed Deployment**  
The ergonomic handle and easy implant-deployment wheel allow for true one-handed implant delivery.

**Adjustable Depth Stop**  
The depth stop can be set with a single hand. Convenient markings in 2 mm increments allow setting adjustments from a minimum of 10 mm to a maximum of 18 mm.

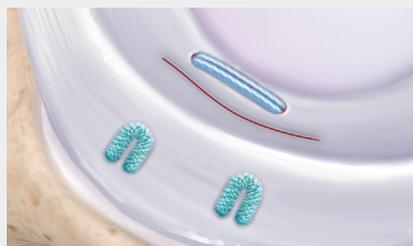


**Multiple Delivery Options**  
The FiberStitch 1.5 implant is available in four different needle tip configurations: a standard 12° up curve, a 24° up curve, a 12° reverse curve, and a straight needle. Each needle tip can be bent to unique angles for meniscal penetration. Use the enhanced 24° up curve to reach posterior areas of the meniscus or, when placed on its side, the larger curve can access the anterior meniscus through the contralateral portal.

With the FiberStitch 1.5 reverse and straight options, surgeons have better access to undersurface meniscal tears, which can be challenging to repair. The reverse curve is designed with the needle bevel on the top to prevent skiving when approaching meniscal tissue.



**Tissue-Sparing, Low-Profile Needle Diameter**  
A low-profile 1.5 mm-diameter needle creates an atraumatic perforation in the meniscus to deliver smaller all-suture anchors.



**Low-Profile Suture Implants**  
The low-profile suture anchors replace traditional hard PEEK plastic implants, and a double-mattress suture construct spans the repair site. Low-profile 2-0 coreless FiberWire suture prevents tissue cut-through and minimizes friction against articular cartilage.<sup>3</sup>



**Force Dispersing Double-Mattress Suture Configuration**  
The unique double-mattress suture configuration disperses fixation across twin mattress sutures, reducing the stress placed on the repaired tissue during the healing process compared to traditional single-suture configurations.



**Active Implant Deployment**  
Implants are deployed from the tip of the needle, reducing needle exposure beyond the meniscus.



Measure the meniscus using a measurement probe **(1)** or the laser lines on the tip of the FiberStitch needle **(1a)**. Set the depth stop at a length 2 mm longer than the meniscus to ensure that the implant is fully deployed behind the meniscus.



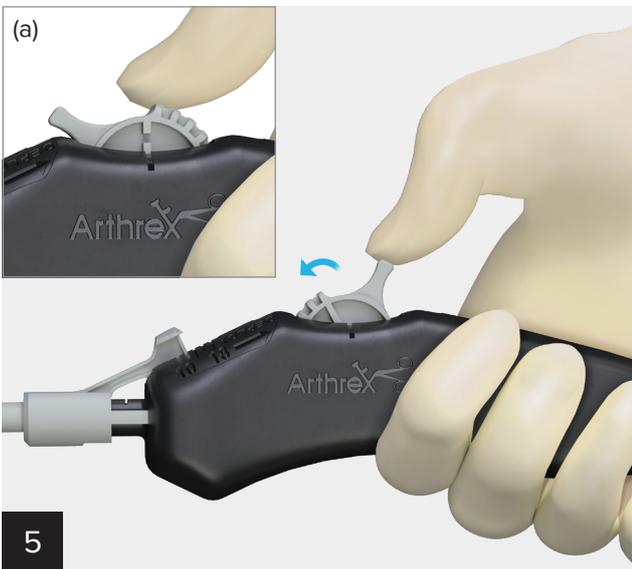
The depth stop is set to 18 mm. To change the depth-stop setting, engage the selector by depressing the gray tab **(2)** and then advancing it forward to the desired depth setting **(2a)**.



Place the delivery needle over the desired entry point for the first implant. Advance the needle through the meniscus by pushing the entire handpiece forward until the desired depth is reached.



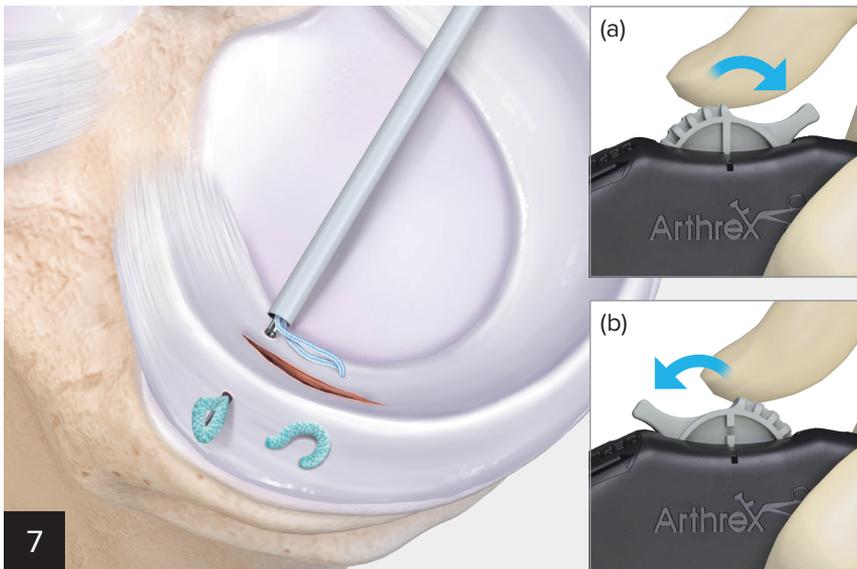
Roll the deployment wheel backward until a hard stop is felt and an audible click is heard. This will deploy the first implant (4). The deployment wheel will display a solid vertical indicator (4a).



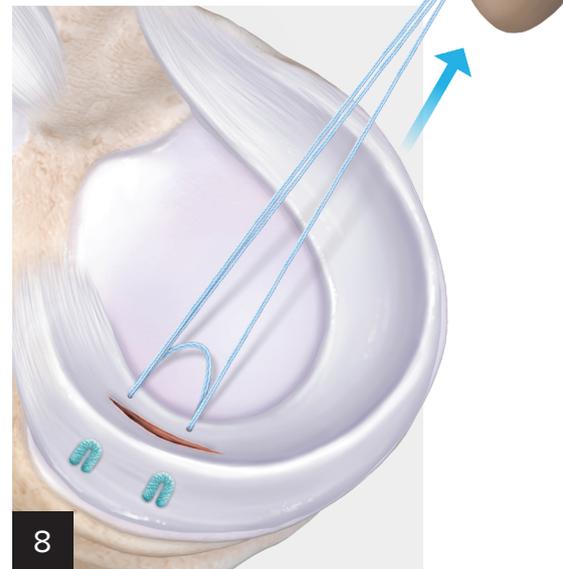
Roll the wheel forward until a hard stop is felt and an audible click is heard. This will confirm that the first implant has been deployed. The deployment wheel will display 2 vertical indicators (a).



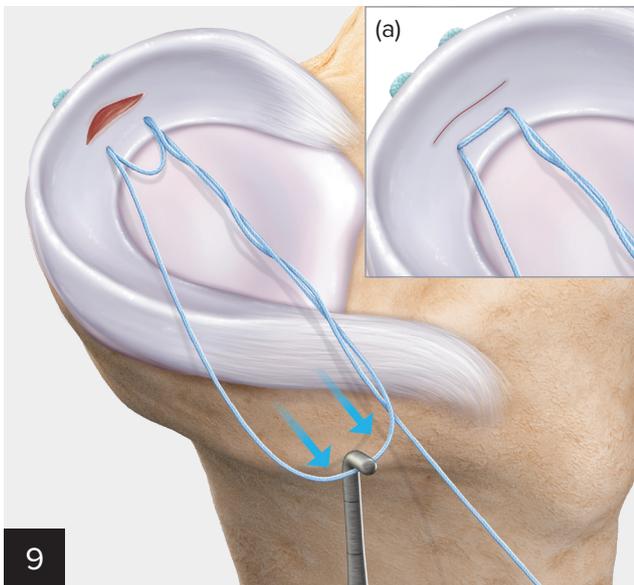
Remove the device from the meniscus and select the location to deploy the second implant. Advance the needle through the meniscus by pushing the entire handpiece forward until the desired depth is reached.



Deploy the second implant by rolling the deployment wheel backward until a hard stop is felt and an audible click is heard. The deployment wheel will display a solid vertical indicator **(a)**. Before removing the device from the tissue, roll the wheel completely forward to a hard stop **(b)**.

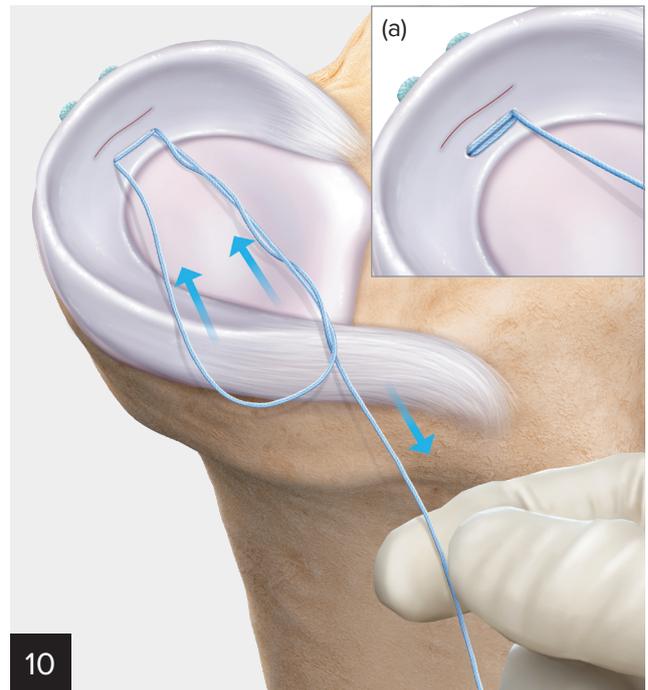


Once both implants are deployed and the inserter is removed from the joint, pinch all the sutures and gently pull to set the implants.

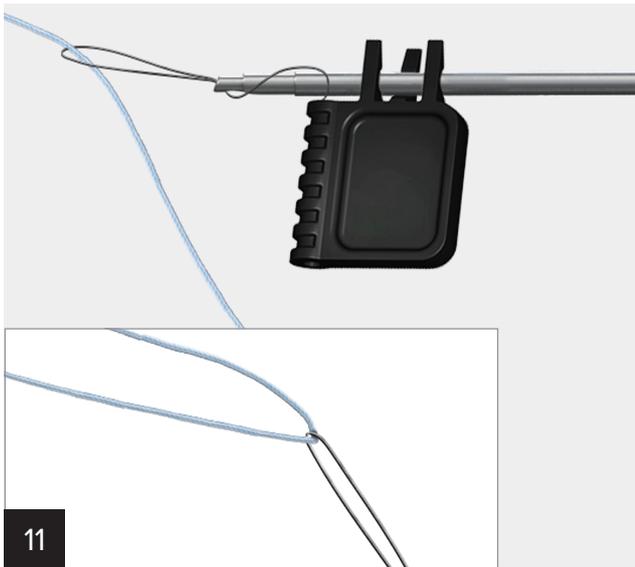


A suture loop and a single suture will be visible outside of the joint. Insert a probe or similar device through the loop and pull the loop of suture to reduce the tissue. The suture spanning the 2 implants will reduce **(a)**.

**Note: Continued tension on the loop suture after reducing the tissue will shorten the single suture. Only apply tension to the loop until the suture spanning the implants is taut.**

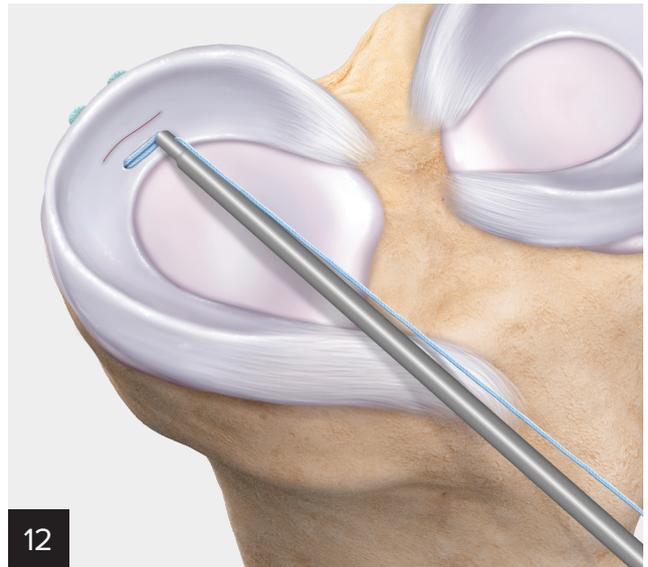


Tension the single suture to reduce the suture loop. The implants are secured when the loop is reduced **(a)**.



11

Load the tail of the suture into the loading wire and pull the black tab to load the knot pusher.



12

Advance the knot pusher toward the meniscus, keeping it parallel to the suture while maintaining tension on the suture.



12a

Depress the back plunger to cut the suture.



13

Final construct.



## Ordering Information

Product description	Item number
FiberStitch™ 1.5 implant, 12° up curve	AR-4580
FiberStitch 1.5 implant, 12° reverse curve	AR-4580R
FiberStitch 1.5 implant, 24° up curve	AR-4580-24
FiberStitch 1.5 implant, straight	AR-4580S
Knot pusher / suture cutter	AR-5815
Knot Pusher / Suture Cutter and Portal Skid Kit	AR-5845
Portal skid	AR-4505
Meniscal Dart™ probe	AR-4008
2.75 mm suture cutter, straight shaft	AR-11790

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.

## References

1. Arthrex, Inc. Data on file (APT-06136). Naples, FL; 2023.
2. Bachmaier S, Krych AJ, Smith PA, et al. Primary fixation and cyclic performance of single-stitch all-inside and inside-out meniscal devices for repairing vertical longitudinal meniscal tears. *Am J Sports Med.* 2022;50(10):2705-2713. doi:10.1177/03635465221107086
3. Bisson LJ, Manohar LM, Wilkins RD, Gurske-Deperio J, Ehrensberger MT. Influence of suture material on the biomechanical behavior of suture-tendon specimens: a controlled study in bovine rotator cuff. *Am J Sports Med.* 2008;36(5):907-912. doi:10.1177/0363546508314793



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.



Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUs)



US patent information

**arthrex.com**