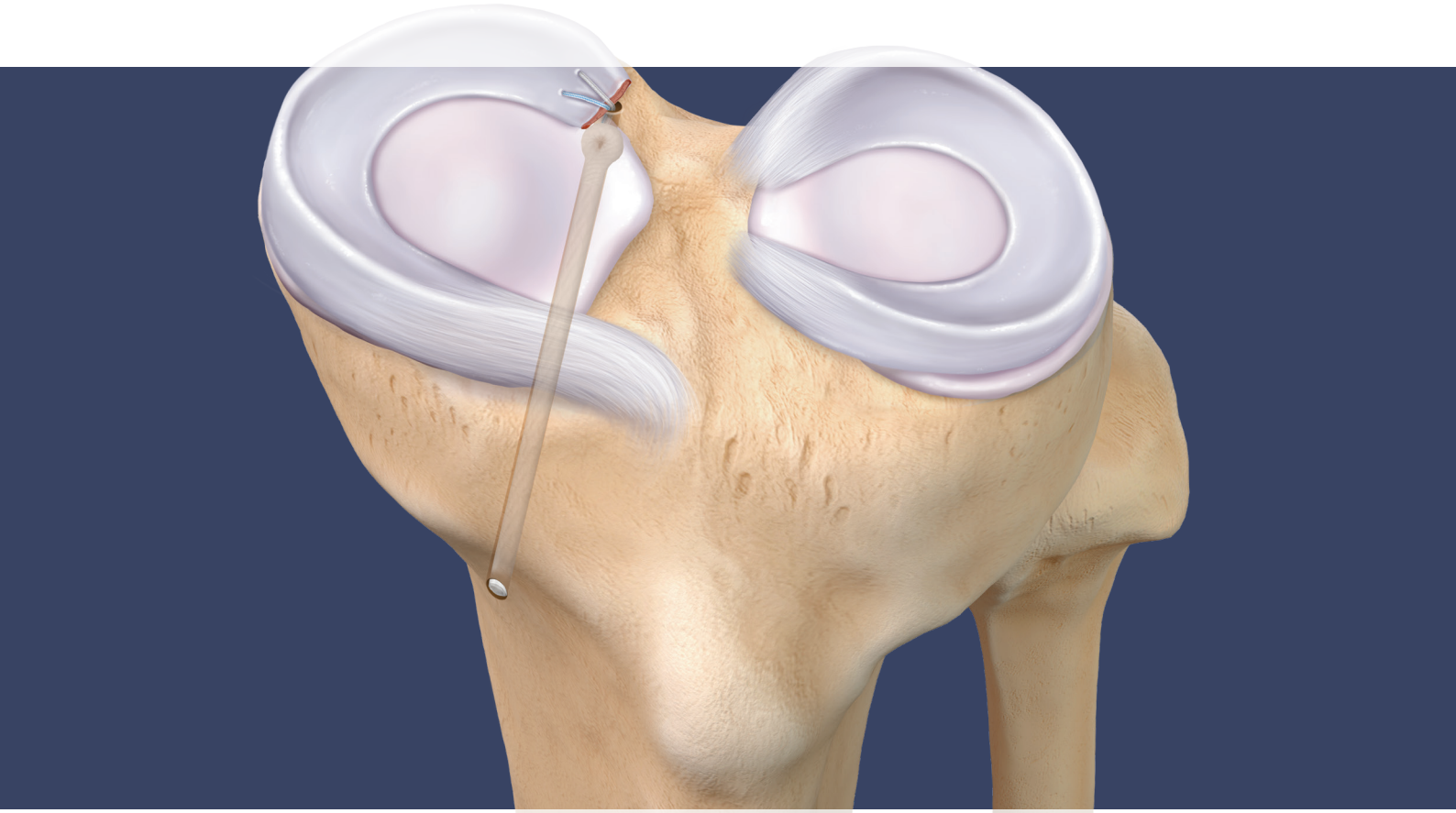
Meniscal Root Repair Using the SutureLoc™ Implant

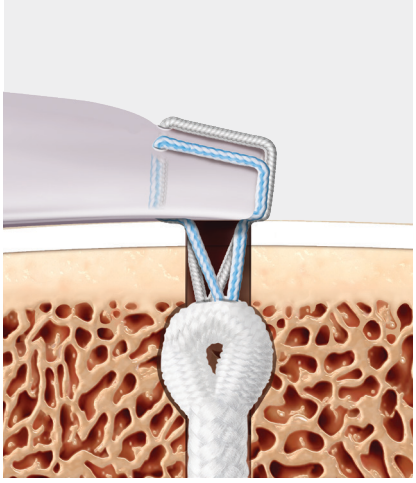
Surgical Technique



Arthrex®

SutureLoc™ Implant

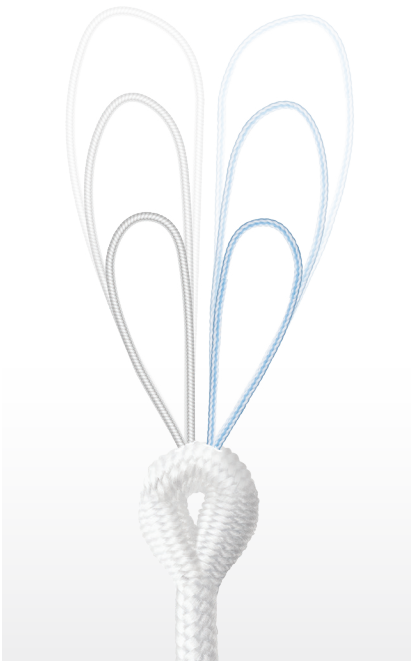
The SutureLoc implant is an all-suture, knotless anchor specifically designed for joint line fixation of the meniscus root. This revolutionary anchor eliminates the need for a posterior medial portal, which is commonly used in direct tibial fixation techniques, making the repair more reproducible. The 2.4 mm cannulated drill pin leaves more bone intact while delivering the SutureLasso™ wire directly to the footprint of the meniscal root. Once the anchor has been passed, the 2 repair sutures can be passed through the tissue in a variety of stitch patterns. The knotless technology is retensionable, allowing surgeons to dial in their repair.



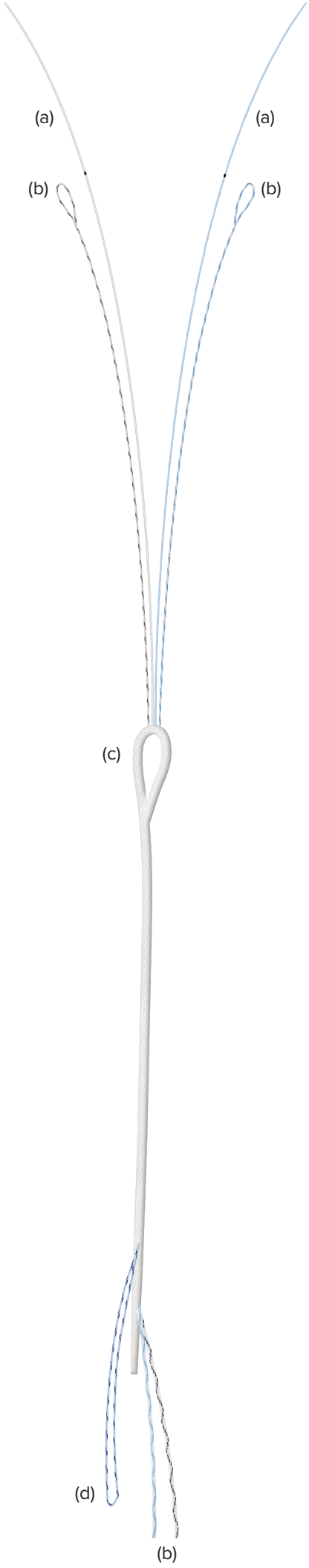
Features and Benefits

- 236.8 N of pull-out strength and 0.34 mm of cyclic displacement[1]
- Double-loaded knotless mechanism allows for 2 repair stitches with only 1 anchor pass, reducing steps from previous techniques
- Soft, all-suture implant
- Minimal bone removal with a smaller, 2.4 mm drill pin and no need to decorticate
- Simple, reproducible suture passing
- Suture tension can be controlled and adjusted under direct visualization
- The repair suture is converted inline, eliminating the “killer curve” and allowing for a smooth conversion

SutureLoc Implant for Meniscal Root Repair



Note: The white dot in the upper left corner signifies the tail end of the anchor.

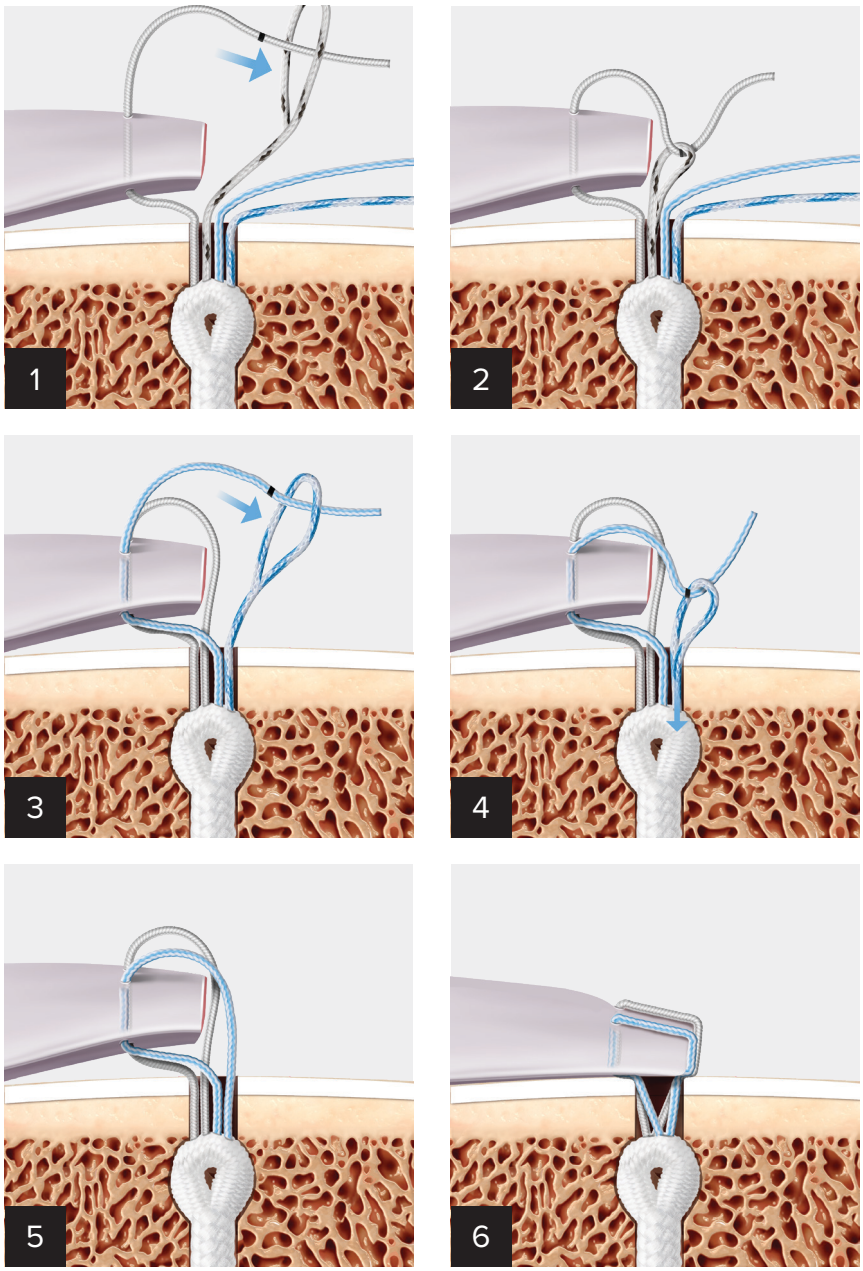


Meniscal Root Repair Technique

The meniscal root repair technique using the SutureLoc™ implant is simple and reproducible. With the double-loaded implant, pass 2 repair stitches with only 1 anchor pass, reducing the number of steps from previous techniques. The repair sutures are converted inline, eliminating the potential for the suture to cut into bone. Set the anchor mechanism in 1 step by pulling the tensioning suture, and cut the tail of the SutureLoc implant flush to bone to complete the repair.

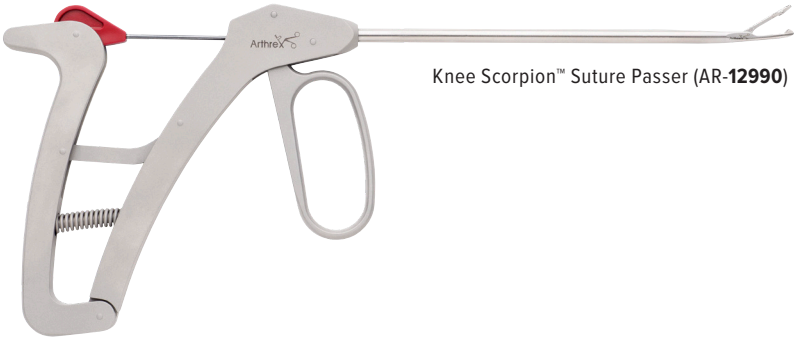
Four distinguishable, all-suture components work together to create a knotless construct:

- Repair sutures **(a)**
- Conversion sutures **(b)**
- Anchor mechanism **(c)**
- Tensioning suture **(d)**

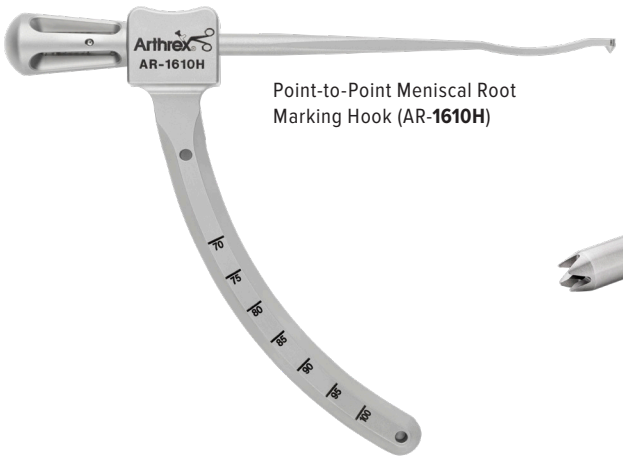


SutureLoc™ Implant Kit (AR-**4551**)

Additional Instruments



Knee Scorpion™ Suture Passer (AR-**12990**)

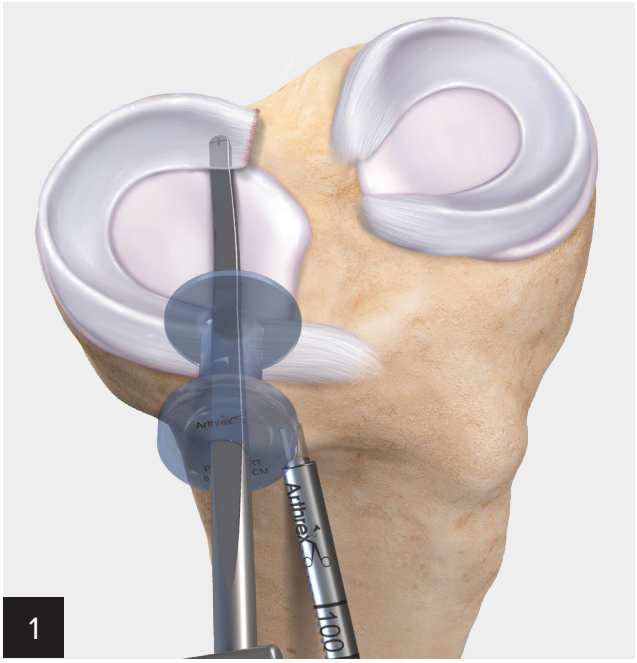


Point-to-Point Meniscal Root Marking Hook (AR-**1610H**)

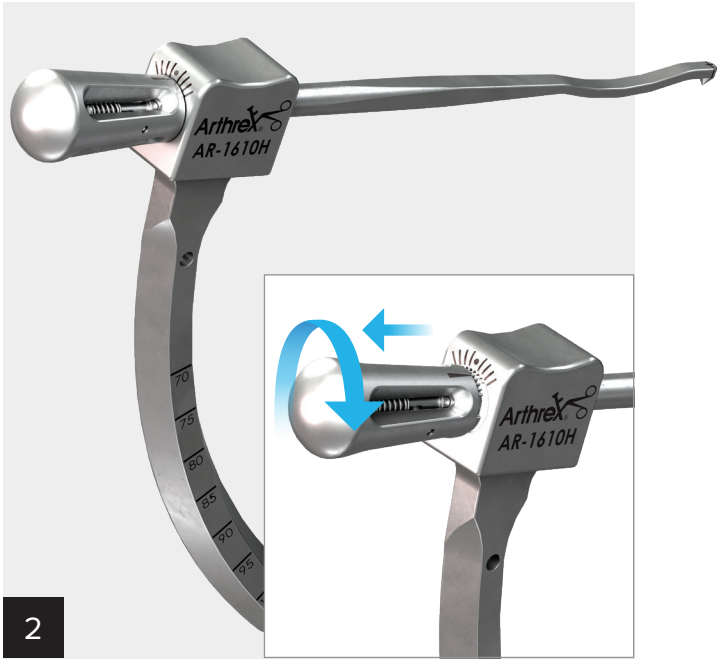
Drill Sleeve for RetroContruction™ Drill Guide, Stepped, 10 mm, long tip (AR-**1204FDS-10**)

2.4 mm Drill Sleeve Insert (AR-**1510FD-24**)

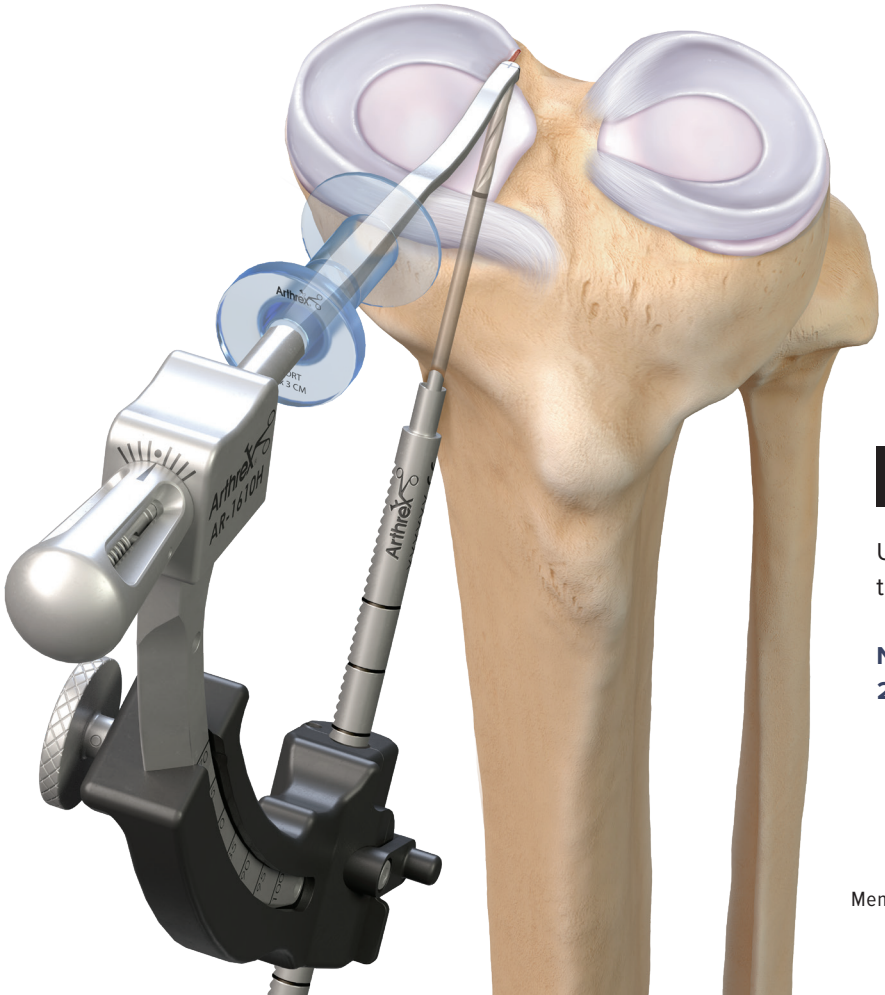
Tibial Socket Creation



Position the tip of the marking hook at the desired exit location at the meniscal root footprint.



Once the drill guide has been positioned at the desired location on the tibial plateau, adjust the angle of approach by pulling back on the nob and rotating the guide to the desired angle. The guide can be set at 10°, 20°, 30°, or 40° off-center.

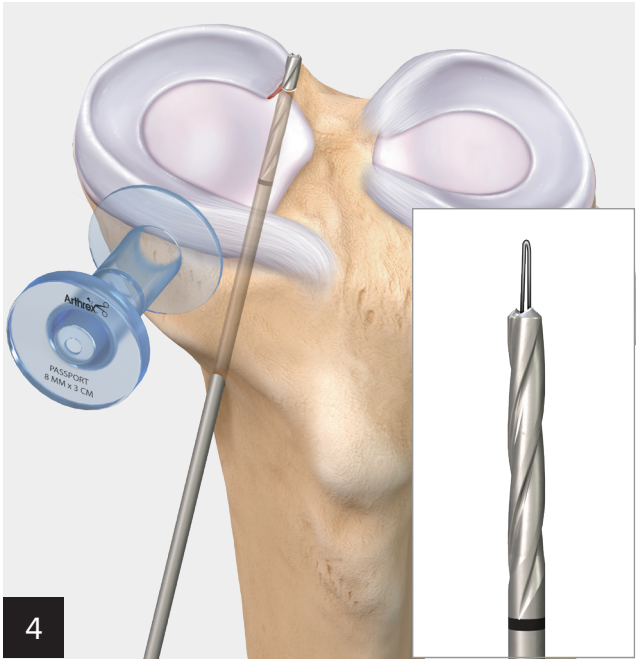


3

Use a 2.4 mm cannulated pin to create a transtibial tunnel.

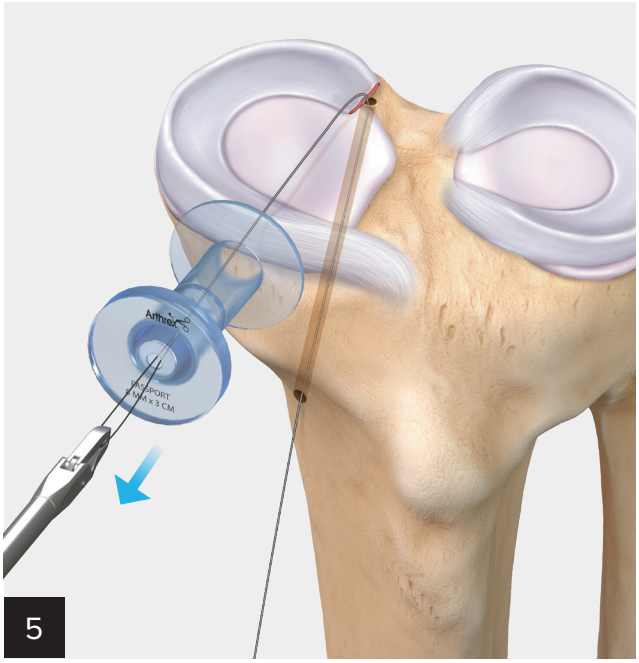
Note: If using a 3.5 mm drill sleeve, the 2.4 mm insert is required.

Suture Passing

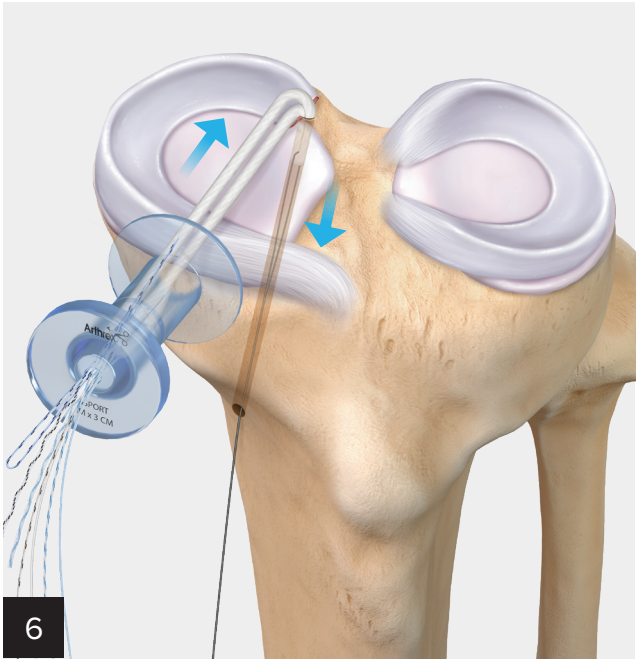


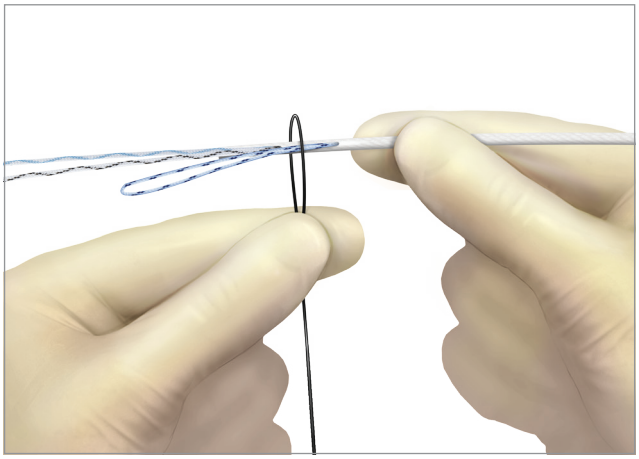
Once the 2.4 mm drill pin is in position, remove the trocar from the cannulated drill, allowing a lasso wire to be delivered through the cannula and into the joint.

Note: To ensure there is no bone in the distal tip of the cannulated drill pin, screw the trocar in tight before removing. This will push any bone out of the cannulation.

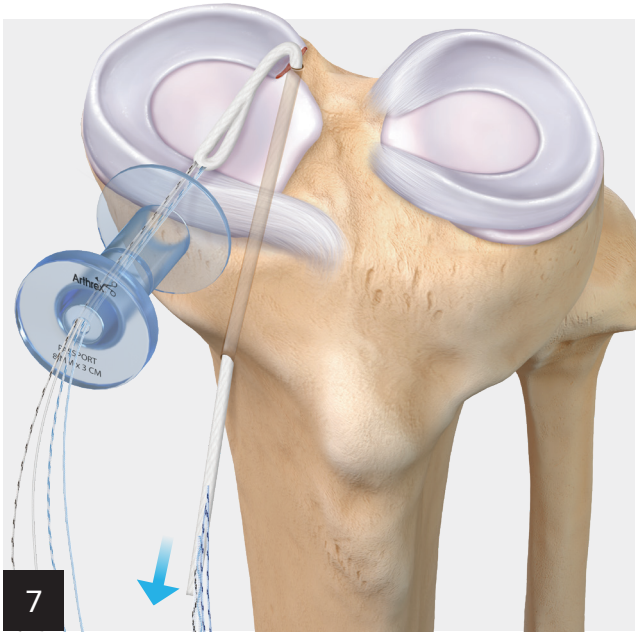


Retrieve the lasso wire through the PassPort Button™ cannula. Advance the lasso wire until the opposite end of the wire is no longer visible at the back end of the cannulated drill. Chuck the cannulated drill and carefully remove it from the tibia. Secure the lasso wire while carefully withdrawing the drill pin.



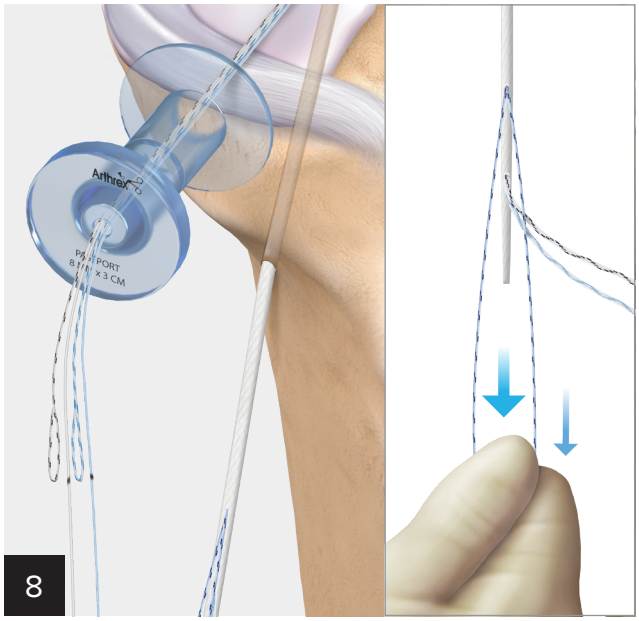


Load the distal end of the SutureLoc™ implant into the loop of the lasso wire. The SutureLasso™ loop should sit half an inch proximal to the tensioning suture to ensure easy passage through the tibial tunnel.



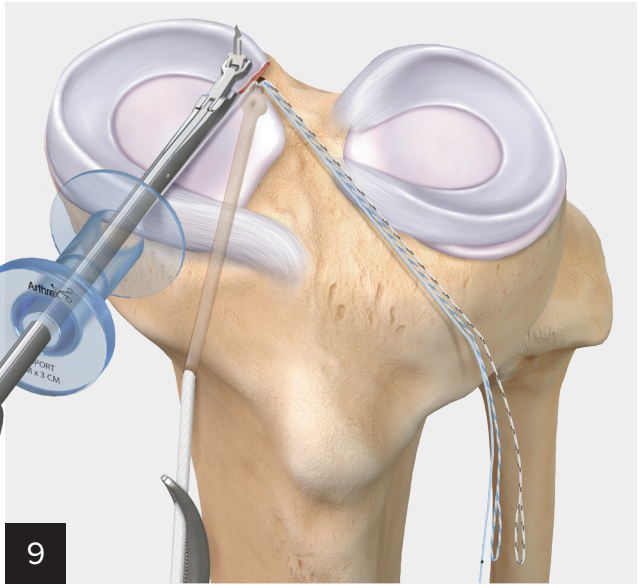
Once the tail of the anchor has been shuttled, discard the lasso wire. Keeping tension on the repair stitches, slowly lead the anchor into the joint and carefully seat the anchor just below the tibial plateau. Use a curette to clear the soft tissue from the aperture of the transtibial tunnel.

Note: Great care should be taken at this step to minimize risk of pulling the anchor through the transtibial tunnel.



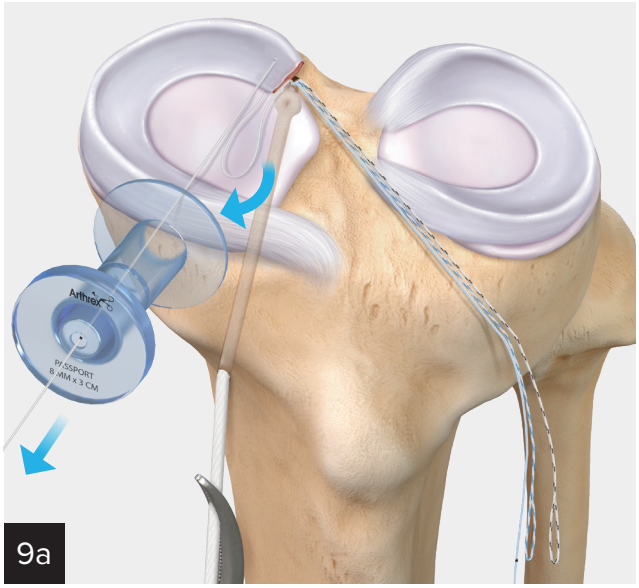
Once the anchor is in position below the tibial plateau, set the anchor by pulling on the loop of the tensioning suture (blue/black) at the distal end of the anchor out of the anterior tibia.

This will compress the anchor mechanism and set the anchor beneath the tibial plateau. Confirm the anchor is set in the tibial tunnel by pulling all 4 suture strands out of the anterior portal simultaneously.

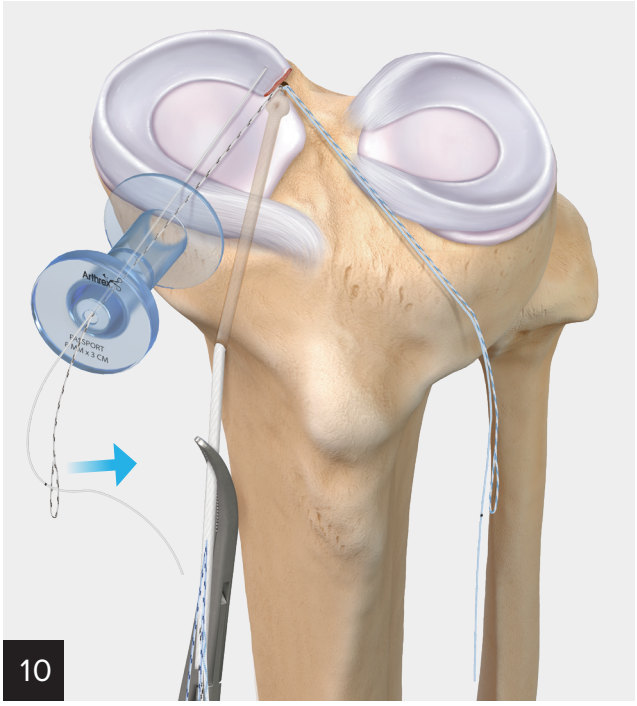


Using a Knee Scorpion™ suture passer, advance a repair suture (solid color) through the meniscal root tissue. This works best starting posterior and working anterior.

Note: It is important to secure the main anchor sheath with a hemostat during repair suture passage to ensure the conversion sutures are not prematurely displaced from the anchor sheath.

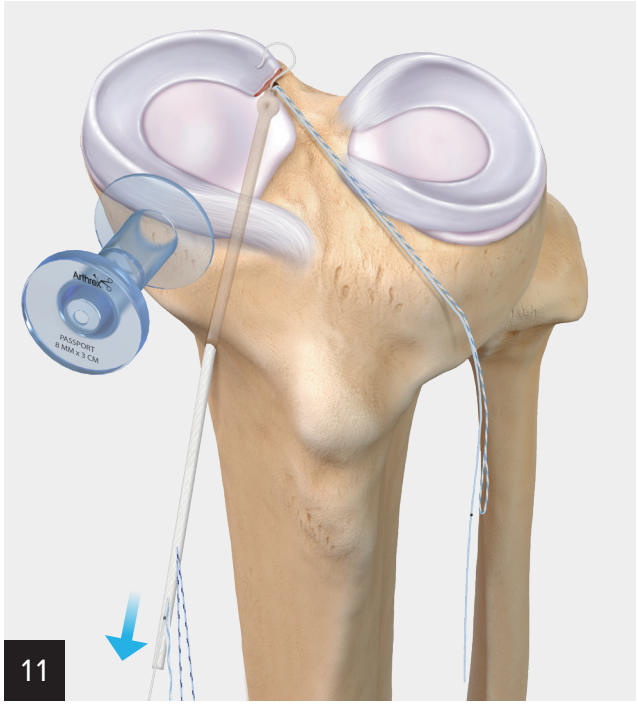


Pull the repair suture through the meniscus until the slack in the suture is reduced.



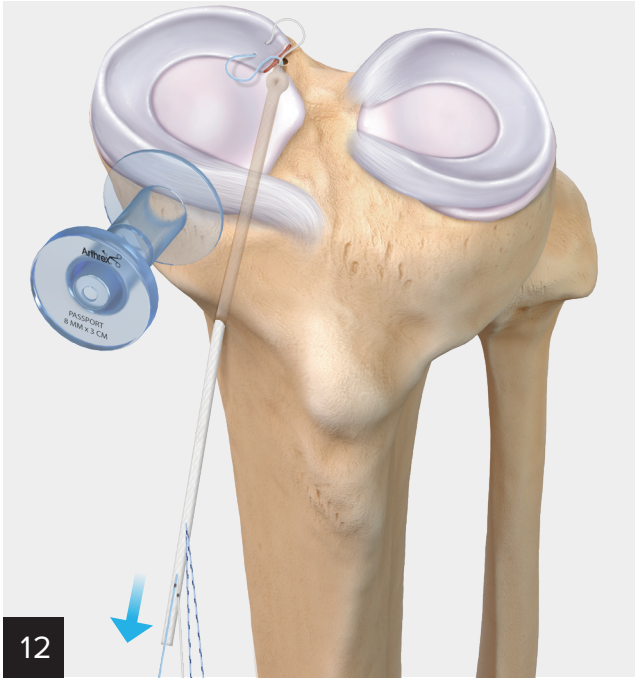
Feed the end of the repair suture (solid color) through the loop of the conversion suture. Fold the repair suture tail at the ink-mark indicator.

Note: The blue repair stitch goes with the blue/white conversion suture and the white repair stitch goes with the white/black conversion suture.



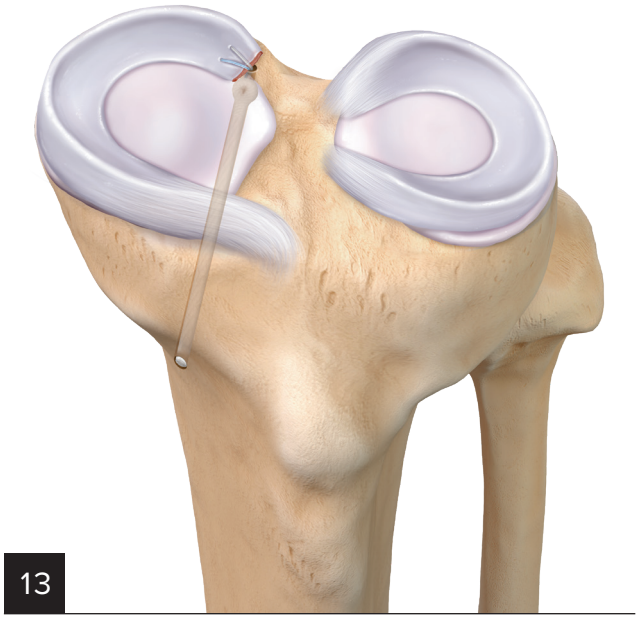
To convert the repair stitch, remove the hemostat and pull the tail of the striped conversion suture at the anterior tibia to shuttle the repair suture into the knotless mechanism.

Note: Pull the repair suture but do not tighten it completely until the second repair suture is shuttled.



Repeat steps 9 through 11 with the second repair suture. Complete the repair by tightening both repair sutures.

Note: Be sure to replace the hemostat after this step.



Final Fixation
The implant can then be cut at the anterior portion on the tibial tunnel. This repair does not require additional fixation.

Ordering Information

Product Description	Item Number
SutureLoc™ Implant Kit	AR-**4551**
SutureLoc Implant 2.4 mm Cannulated Drill Pin Knee Scorpion™ Needle 8 mm × 3 mm PassPort Button™ Cannula SD Lasso Wire	

Meniscal Repair and Resection

Product Description	Item Number
Meniscal Repair and Resection Set	AR-**4555S**
Point-to-Point Meniscal Root Marking Hook	AR-**1610H**
Meniscal Root Marking Hook	AR-**1610MR**
Locking Guide for Meniscal Root Marking Hook	AR-**1610LG**
Knee Scorpion Suture Passer	AR-**12990**
2.75 mm Mini Suture Retriever, straight	AR-**11540**
MegaBiter™ Punch, straight	AR-**41006**
MegaBiter Punch, up-curved	AR-**41026**
MegaBiter Punch, straight left	AR-**41006L**
MegaBiter Punch, straight right	AR-**41006R**
Probe, 3.4 mm hook	AR-**10010**
Meniscal Repair Rasp	AR-**4130**
Side-Release RetroConstruction™ Handle	AR-**1510HR**
Drill Sleeve for Side-Release Handle, ratcheting, 2.4 mm	AR-**1510FD-24**
Stepped Drill Sleeve for Side-Release Handle, ratcheting	AR-**1510FS-7**
Insert for Stepped Drill Sleeve, 2.4 mm	AR-**1204F-24I**
Meniscal Repair and Resection Instrument Case	AR-**4555C**

Products may not be available in all markets because product availability is subject to the regulatory approvals and medical practices in individual markets. Please contact your Arthrex representative if you have questions about the availability of products in your area.

Reference

1. Arthrex, Inc. Data on file (APT-05761A). Naples, FL; 2022.

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 and/or outcomes.

View U.S. patent information at www.arthrex.com/corporate/virtual-patent-marking

arthrex.com