

Meniscal Root Repair Using the SutureLoc[™] Implant

Surgical Technique

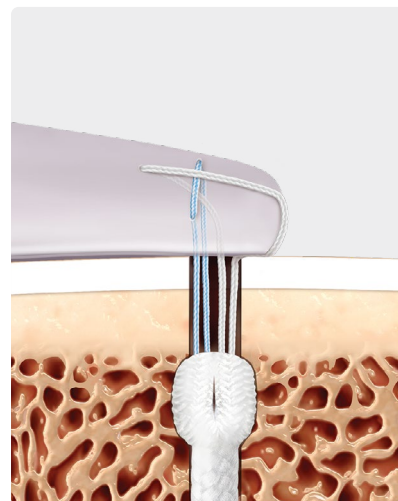


SutureLoc™ Implant

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, a variety of stitch patterns can be used on the 2 repair sutures. 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 displacement¹
- › 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
- › Repair sutures are converted inline for a smooth conversion

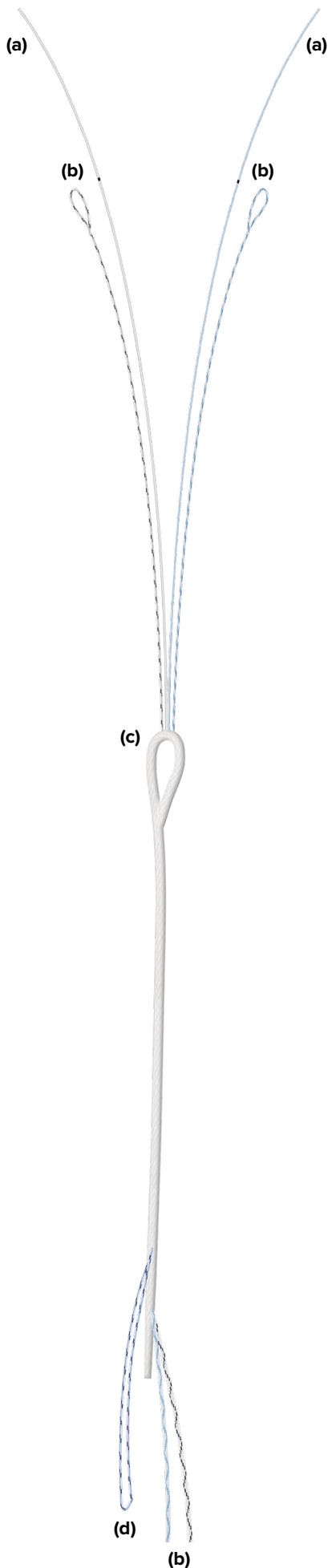


SutureLoc Implant for Meniscal Root Repair



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



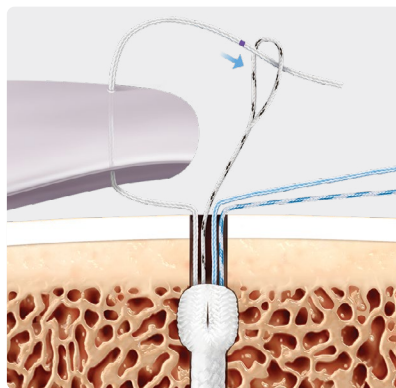


Meniscal Root Repair Technique

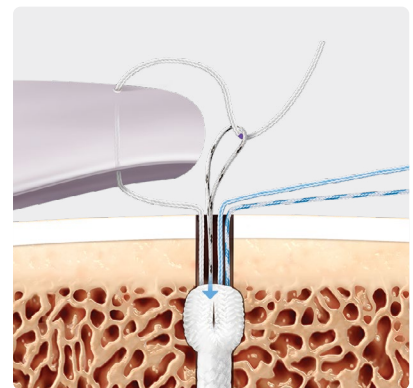
The meniscal root repair technique using the SutureLoc™ implant is simple and reproducible. With the double-loaded implant, pass 2 repair stitches with only 1 anchor pass, reducing the number of steps from previous techniques. The repair sutures are converted inline, eliminating the potential for the 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:

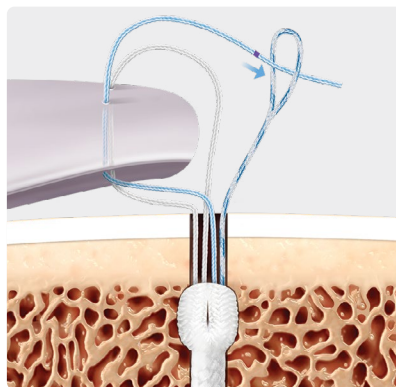
- › Repair sutures **(a)**
- › Conversion sutures **(b)**
- › Anchor mechanism **(c)**
- › Tensioning suture **(d)**



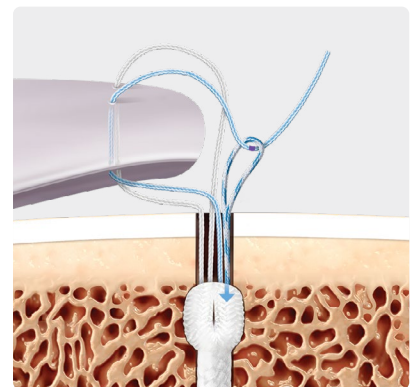
01



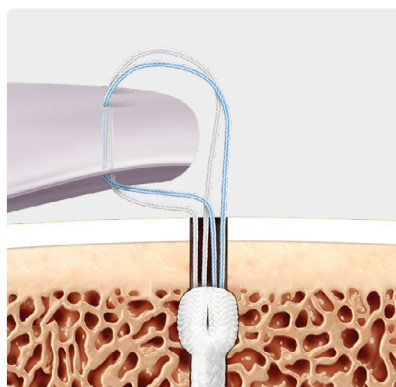
02



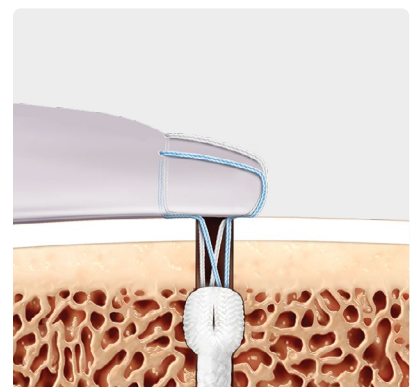
03



04



05



06

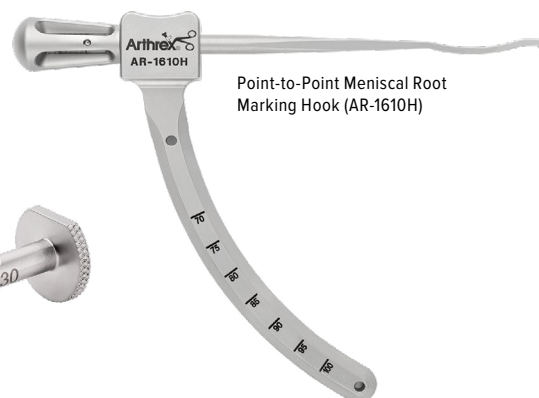
Available Instrumentation



SutureLoc™ Implant Kit (AR-4551)



Knee Scorpion™ Suture
Passer (AR-12990)

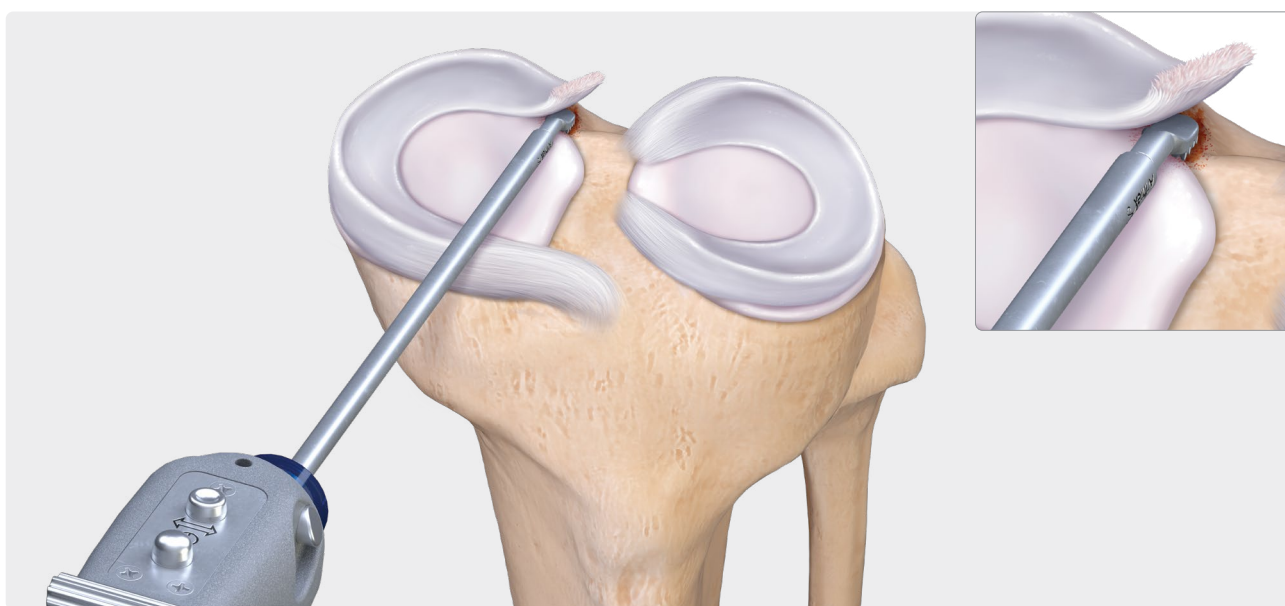


Point-to-Point Meniscal Root
Marking Hook (AR-1610H)



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

Bone Bed Preparation

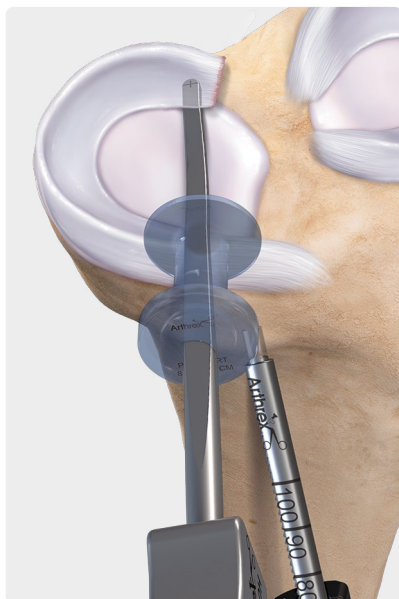


01

Clear the soft tissue surrounding the tunnel drilling site to create a bleeding bone bed at the root attachment.

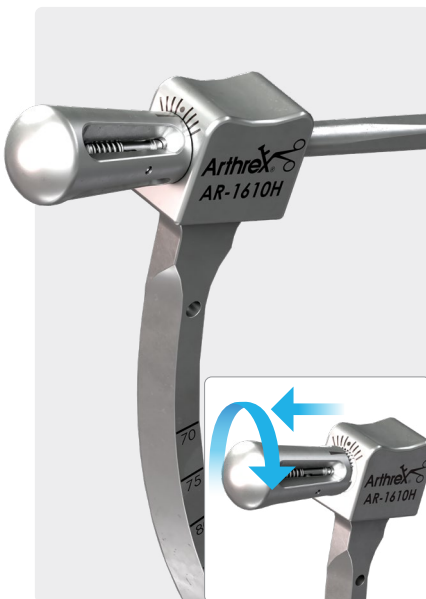
Note: A curette, PoweRasp™ instrument, Apollo^{RF} SJ50 probe, or other hand instrument can be used based on surgeon preference.

Tibial Socket Creation



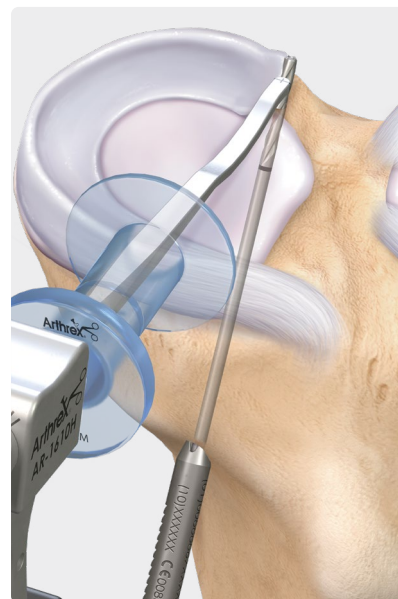
02

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



03

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 knob and rotating the guide to the desired angle. The guide can be set at 10°, 20°, 30°, or 40° off-center.

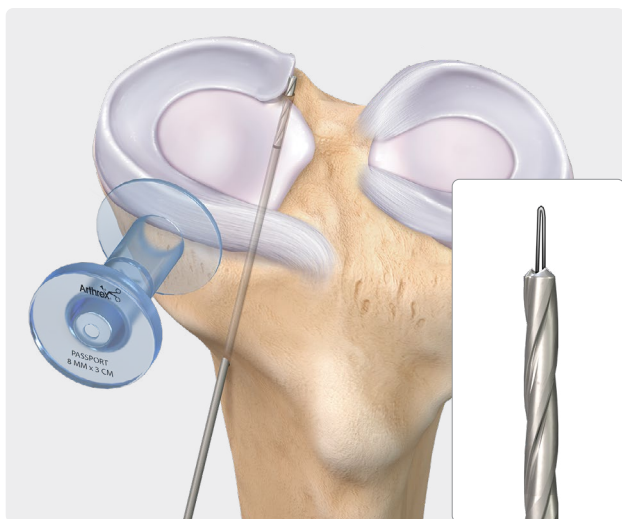


04

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.

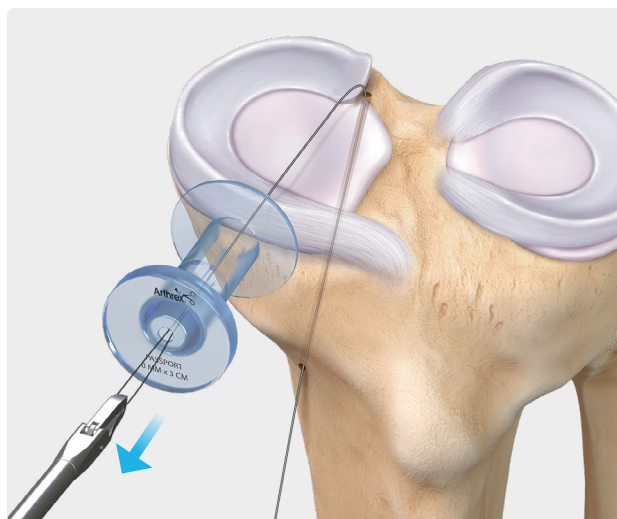
Suture Passing



05

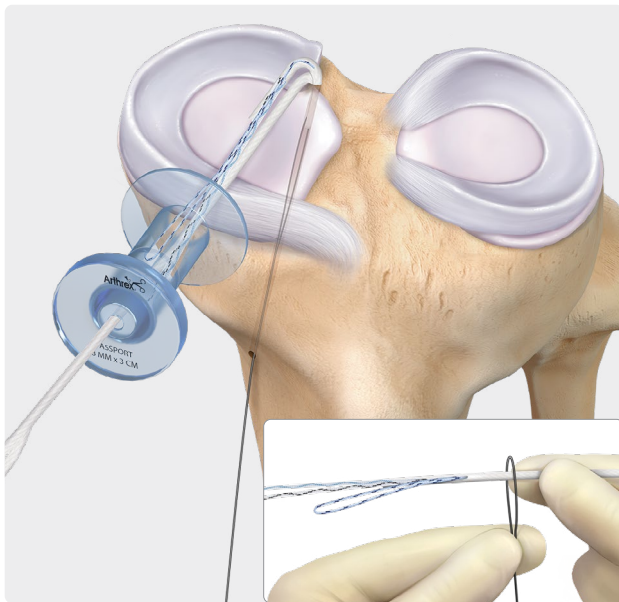
Once the 2.4 mm drill pin is in position, remove the trocar from the cannulated drill, allowing a lasso wire to be delivered through the cannula and into the joint.

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.



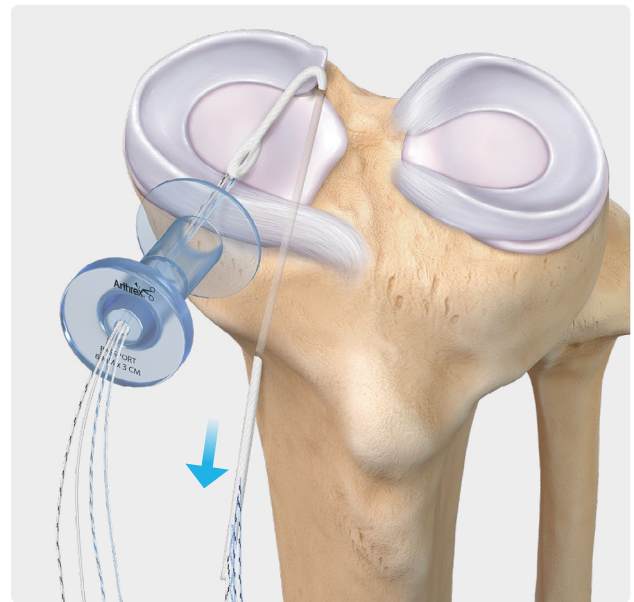
06

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.



07

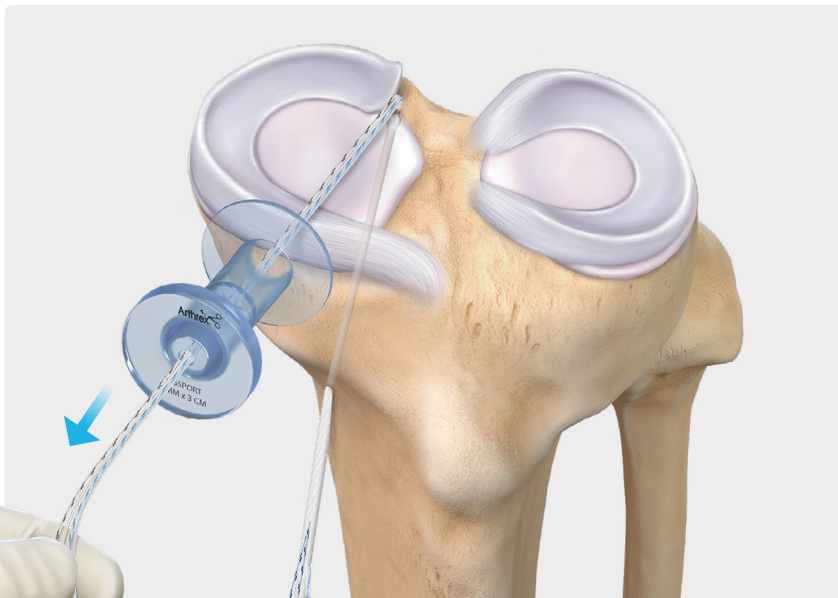
Load the distal end of the SutureLoc™ implant into the loop of the lasso wire. The SutureLasso™ loop should sit half an inch proximal to the tensioning suture to ensure easy passage through the tibial tunnel.



08

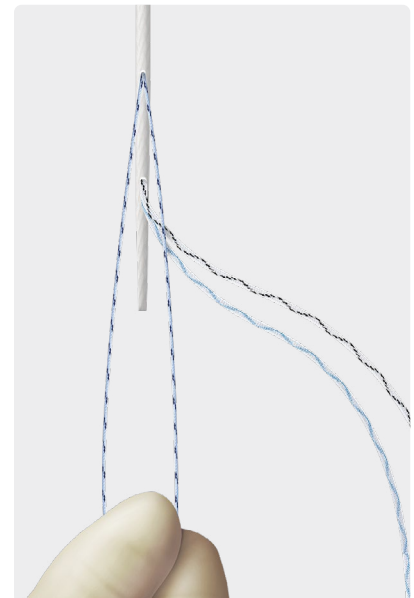
Once the tail of the anchor has been shuttled, discard the lasso wire. Keeping tension on the repair stitches, slowly lead the anchor into the joint and carefully seat the anchor just below the tibial plateau.

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



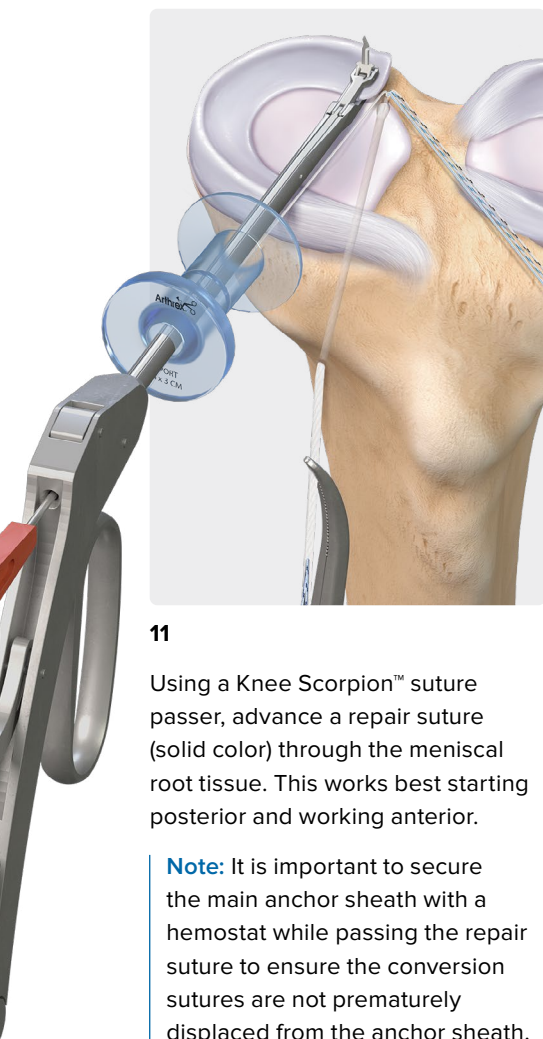
09

Once the sheath is seated in the bone tunnel below the cortical layer of the tibial plateau, pull back on all 4 sutures coming out of the anterior portal to provisionally set the implant.



10

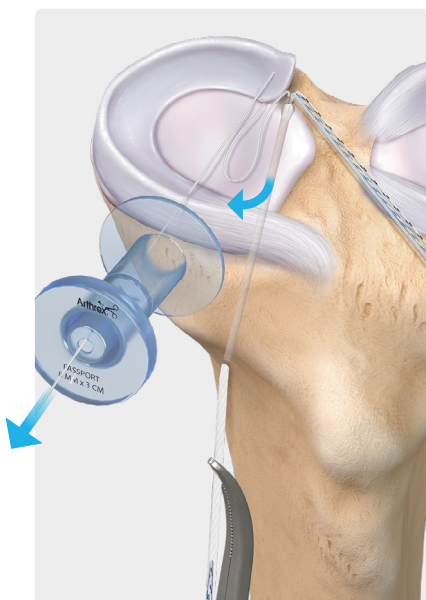
Finish setting the implant by pulling on the loop of the tensioning suture (blue/black) at the distal end of the anchor out of the anterior tibia while maintaining tension on the 4 sutures coming out of the anterior portal.



11

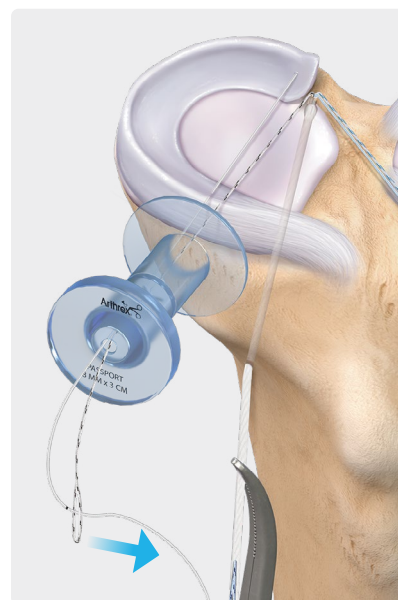
Using a Knee Scorpion™ suture passer, advance a repair suture (solid color) through the meniscal root tissue. This works best starting posterior and working anterior.

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



12

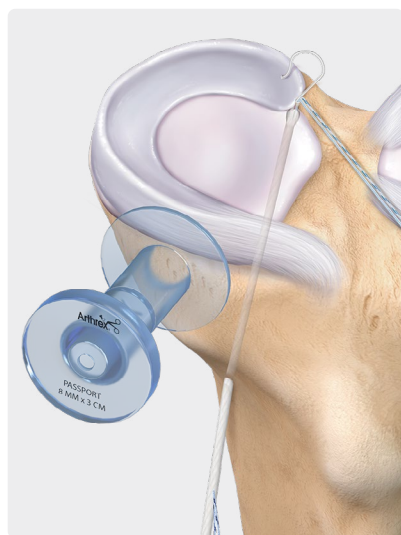
Pull the repair suture through the meniscus until the slack in the suture is reduced.



13

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.

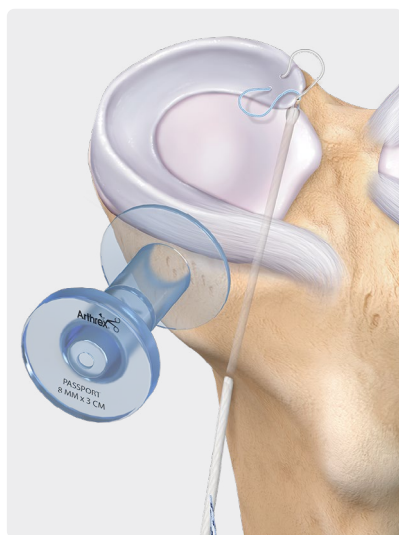
Note: The blue repair stitch goes with the blue/white conversion suture and the white repair stitch goes with the white/black conversion suture.



14

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.



15

Repeat steps 10 through 12 with the second repair suture. Complete the repair by tightening both repair sutures.



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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

SutureLoc™ Implant Kit (AR-4551)

- SutureLoc implant
- 2.4 mm cannulated drill pin
- Knee Scorpion™ needle
- 8 mm × 3 cm PassPort Button™ cannula
- SutureLasso™ SD wire loop

Meniscal Repair and Resection

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 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.

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 or outcomes.



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



US patent information