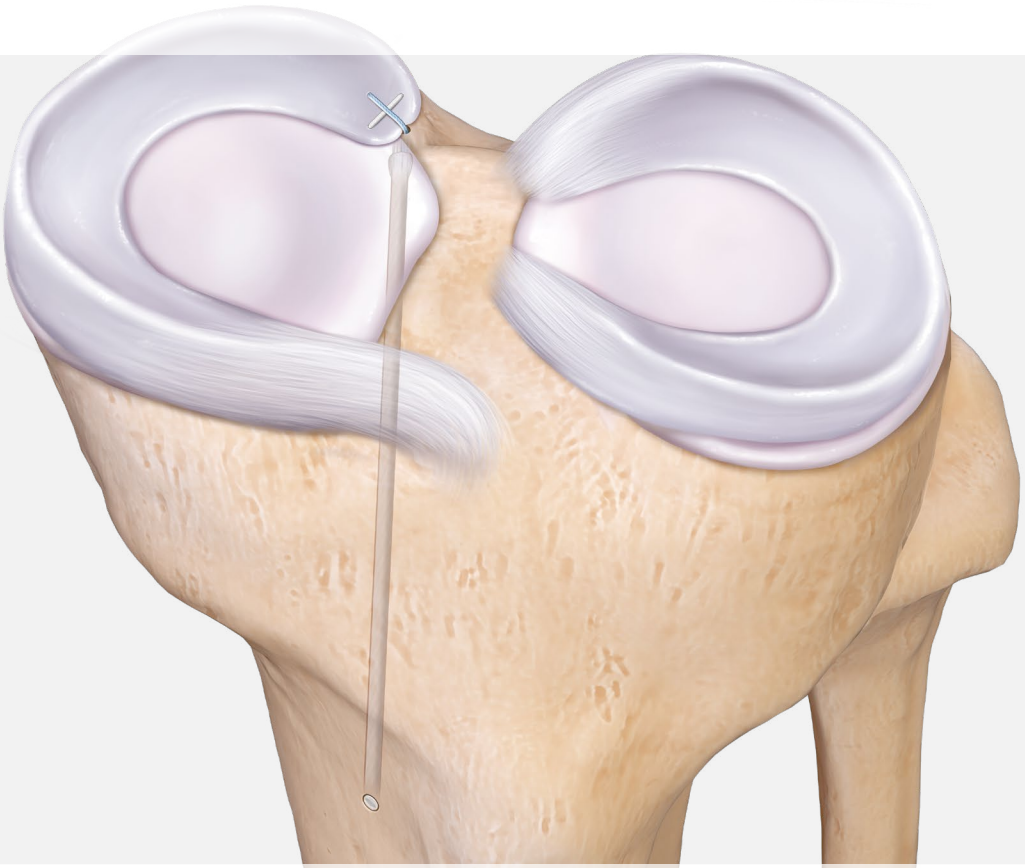
Mason-Allen Configuration Using the SutureLoc™ Implant for Meniscal Root Repair

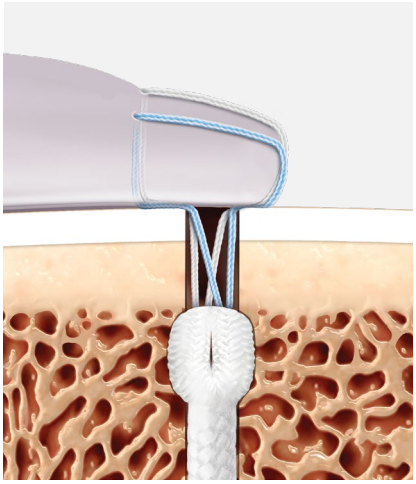
Surgical Technique



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.

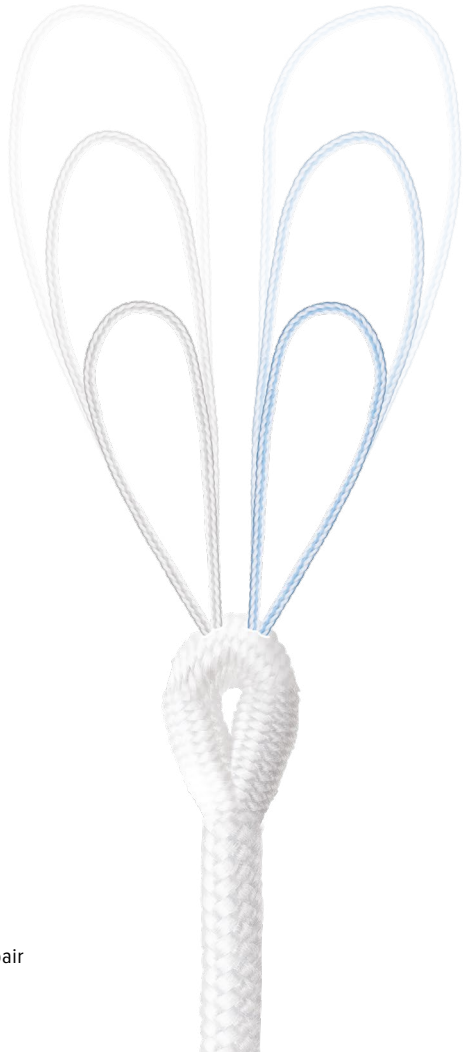


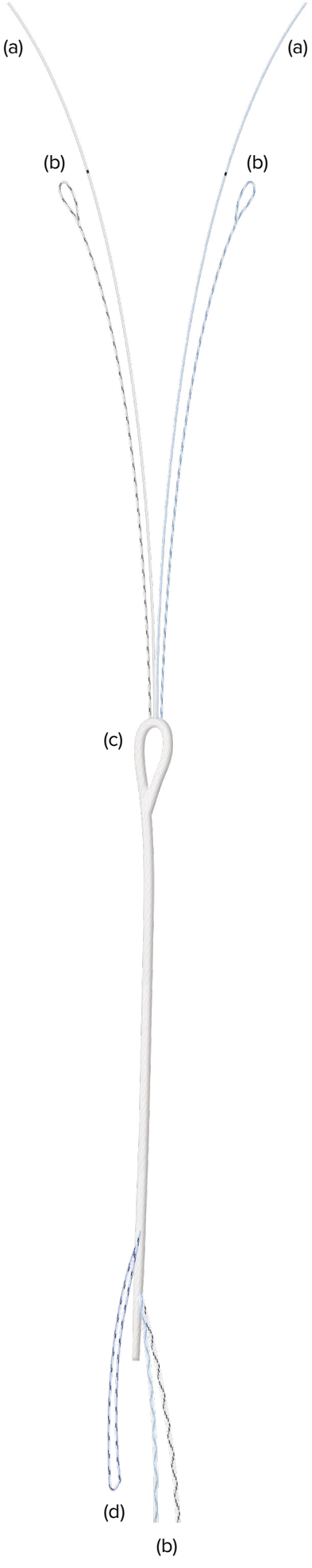
Features and Benefits

- 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
- Repair sutures are converted in-line 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.



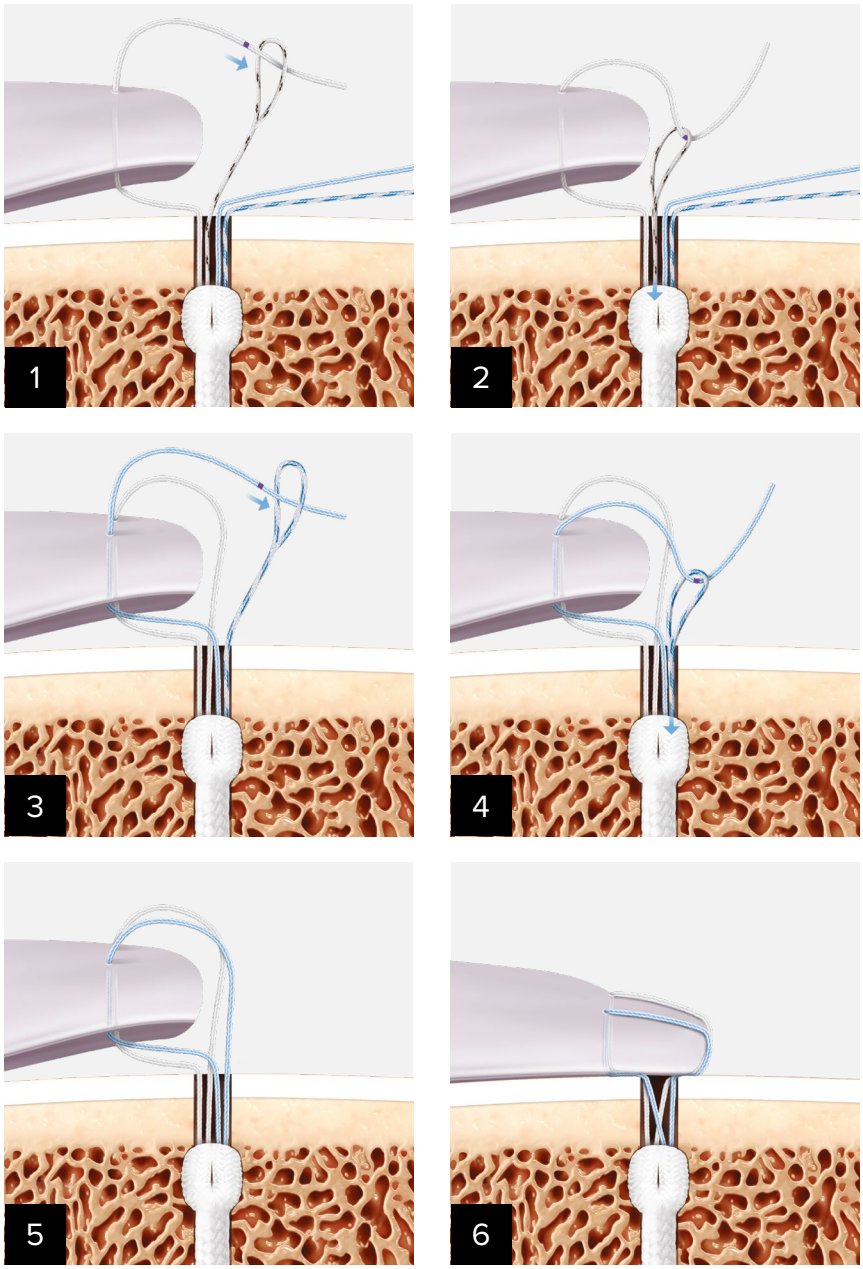


Meniscal Root Repair Technique

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 in-line, 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.

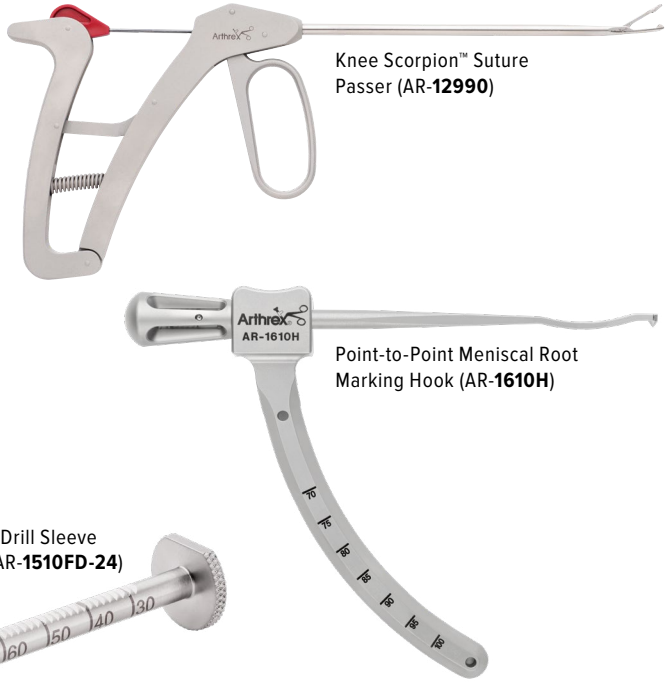
Four distinguishable, all-suture components work together to create a knotless construct:

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



Available Instrumentation

SutureLoc™ Implant Kit (AR-**4551**)

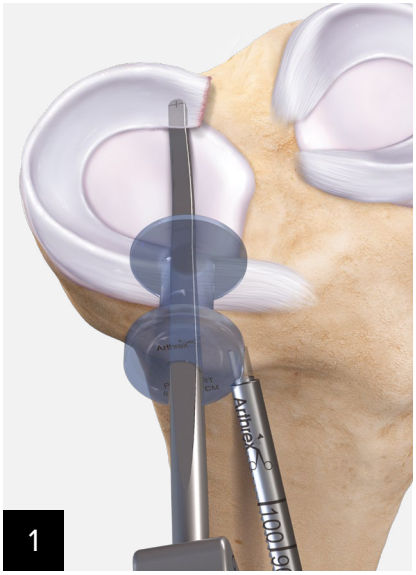


Knee Scorpion™ Suture Passer (AR-**12990**)

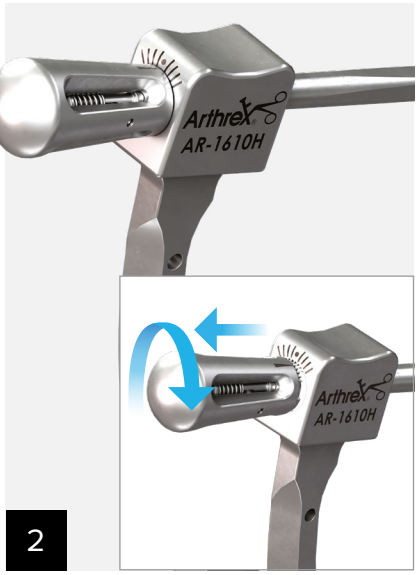
Point-to-Point Meniscal Root Marking Hook (AR-**1610H**)

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

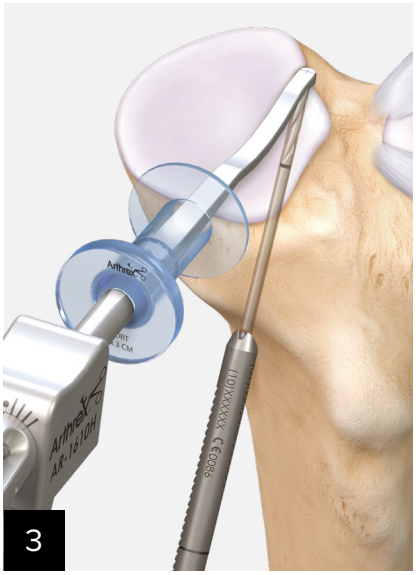
Tibial Socket Creation



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



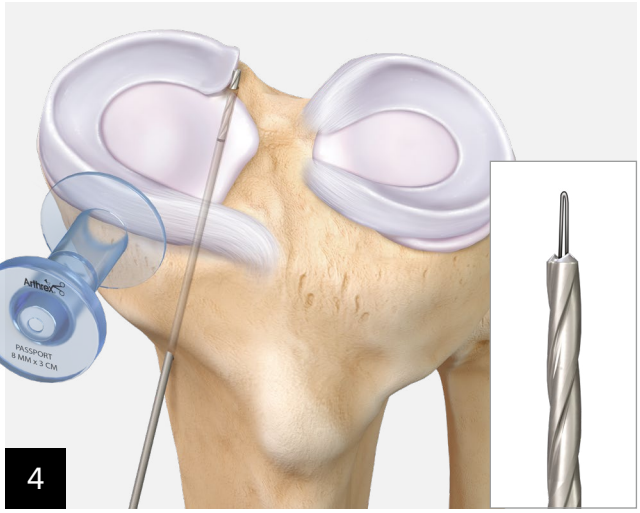
Once the drill guide has been positioned at the preferred location on the tibial plateau, adjust the angle of approach by pulling back on the nob and rotating the guide to the appropriate angle. The guide can be set at 10°, 20°, 30°, or 40° off-center.



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

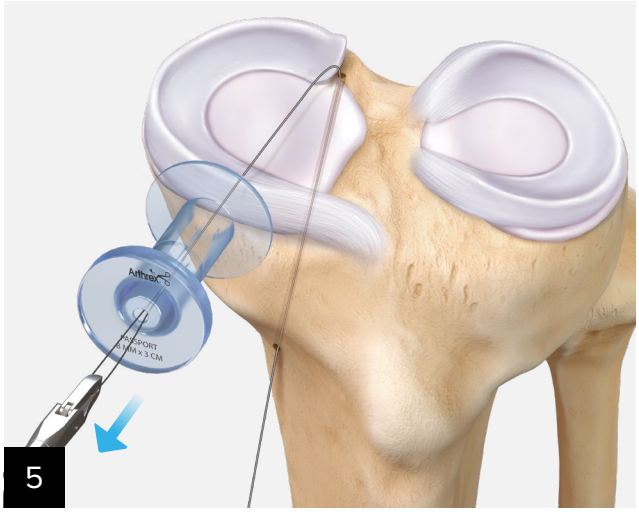
Note: If using a 3.5 mm drill sleeve, the 2.4 mm insert is required.

SutureLoc™ Implantation

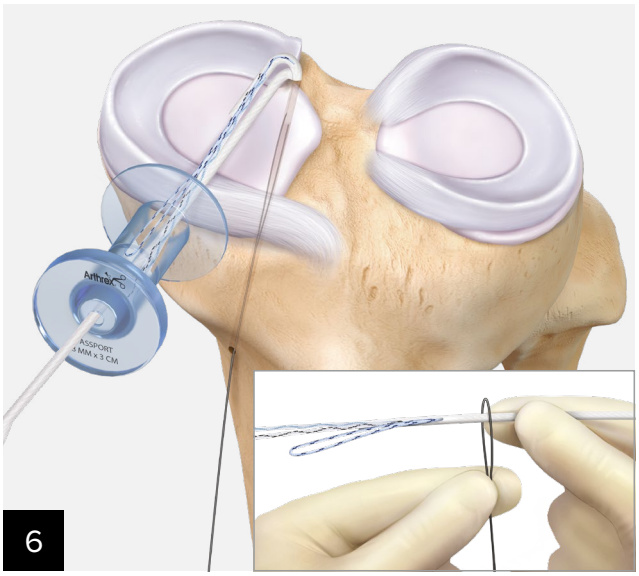


Once the 2.4 mm drill pin is in position, remove the trocar from the cannulated drill, allowing a SutureLasso™ wire to be delivered through the cannula and into the joint. Use a curette to clear the soft tissue from the aperture of the transtibial tunnel.

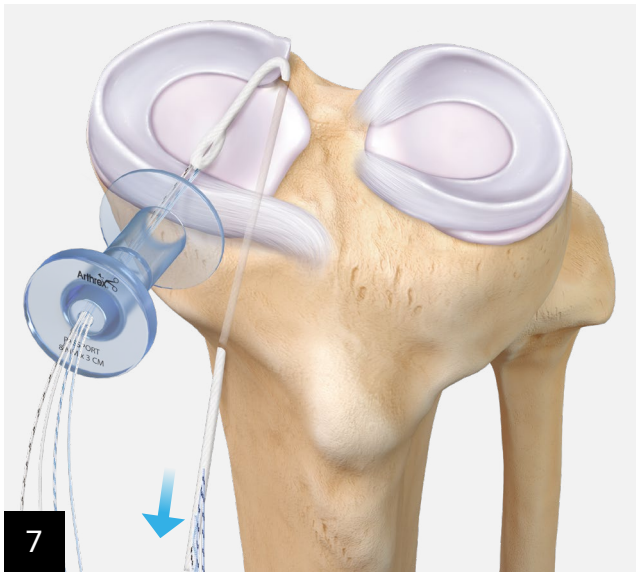
Note: To ensure there is no bone in the distal tip of the cannulated drill pin, screw the trocar in tight before removing. This will push any bone out of the cannulation.



Retrieve the lasso wire through the PassPort Button™ cannula. Advance the SutureLasso 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.

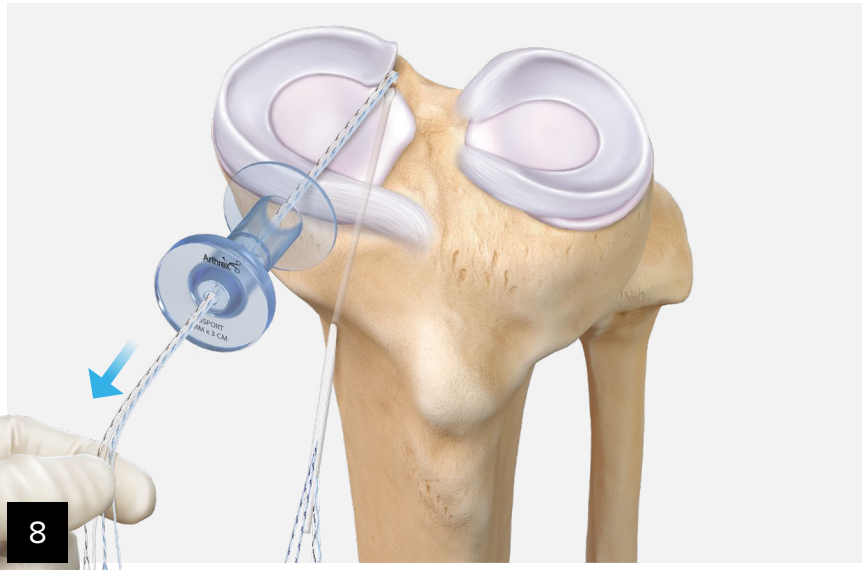


Load the distal end of the SutureLoc implant into the loop of the lasso wire. The SutureLasso loop should sit half an inch proximal to the tensioning suture to ensure easy passage through the tibial tunnel.

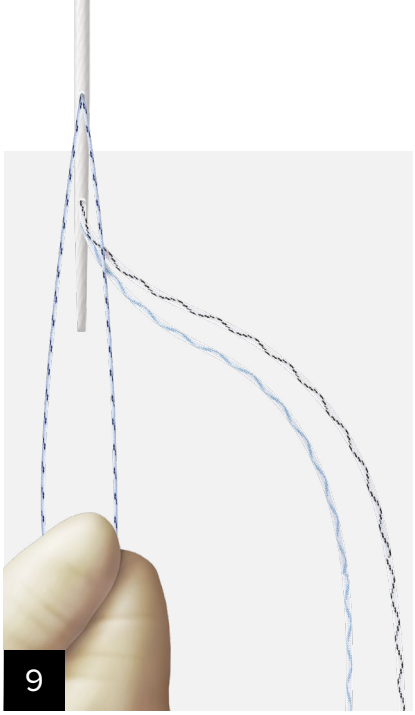


Once the tail of the anchor has been shuttled, discard the SutureLasso wire. Keeping tension on the repair stitches, slowly lead the anchor into the joint and carefully seat the anchor just below the tibial plateau.

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

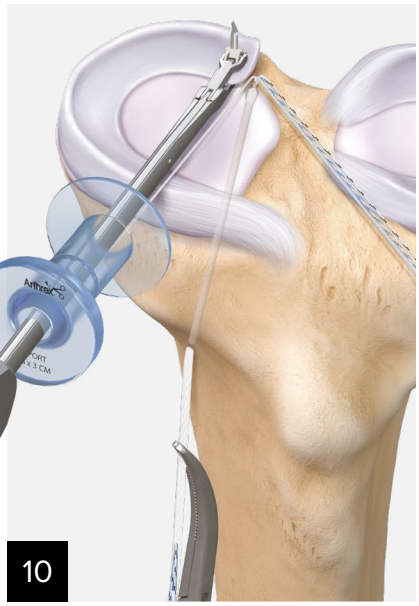


Once the sheath is seated in the bone tunnel below the cortical layer of the tibial plateau, pull back on all 4 sutures coming out of the anterior portal to provisionally set the implant.



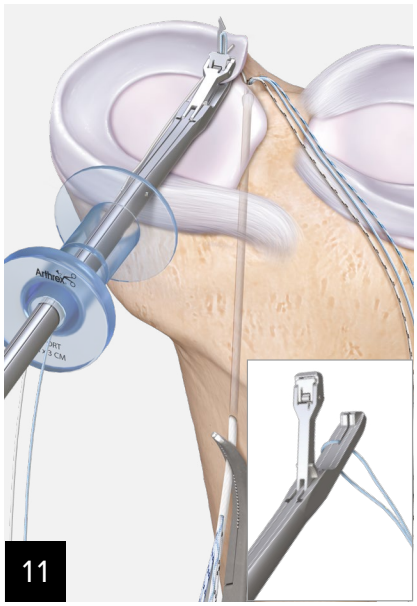
Finish setting the tension of the implant by pulling on the loop of suture at the distal end of the implant, exiting the tunnel at the anterior tibia.

Suture Passing for Mason-Allen Stitch Configuration

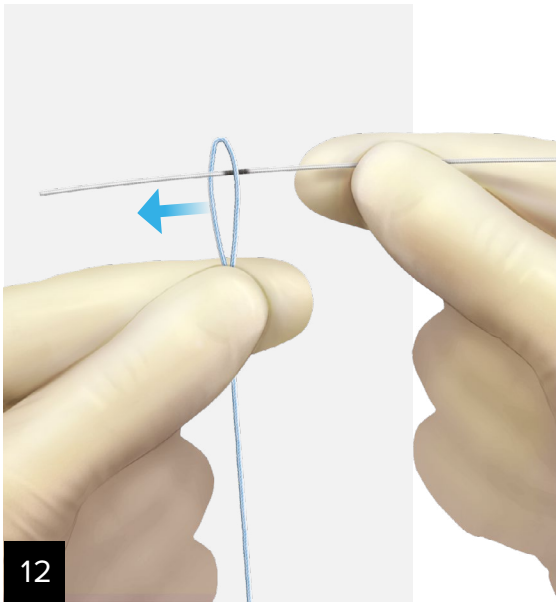


To create the mattress stitch, use the Knee Scorpion™ suture passer to advance a repair suture (solid color) through the meniscal root tissue starting posterior and working anterior.

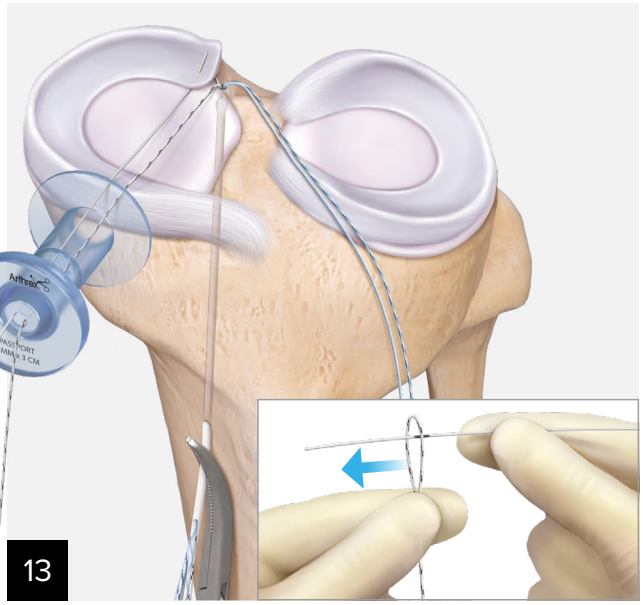
Note: It is important to secure the main anchor sheath with a hemostat while passing the repair suture to ensure the conversion sutures are not prematurely displaced from the anchor sheath.



In order to complete the mattress stitch, use a Knee Scorpion suture passer to pass the loop of an 0 FiberLink™ suture to the superior aspect of the meniscus anterior to your first pass.

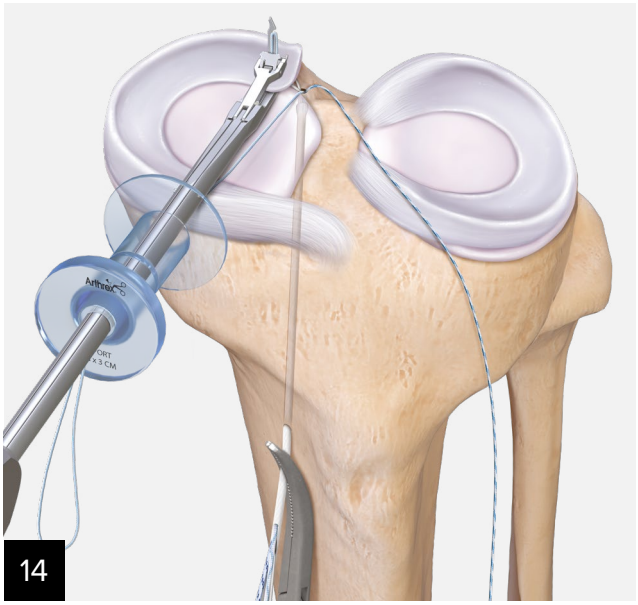


Once passed, load the repair suture into the loop of the FiberLink suture and pull on the free end to shuttle the repair suture to the inferior aspect of the meniscus.

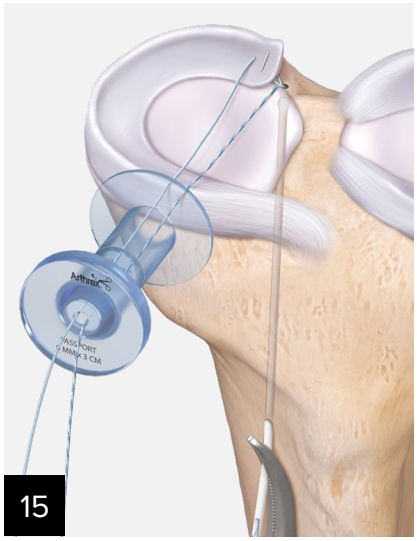


Once the mattress stitch has been created, convert the repair suture using the conversion links. Feed the end of the repair suture (solid color) through the loop of the conversion suture. Fold the repair suture tail at the ink-mark indicator. Remove the hemostat to convert the repair stitch, and pull the tail of the striped conversion suture at the anterior tibia to shuttle the repair suture into the knotless mechanism. Do not tighten completely.

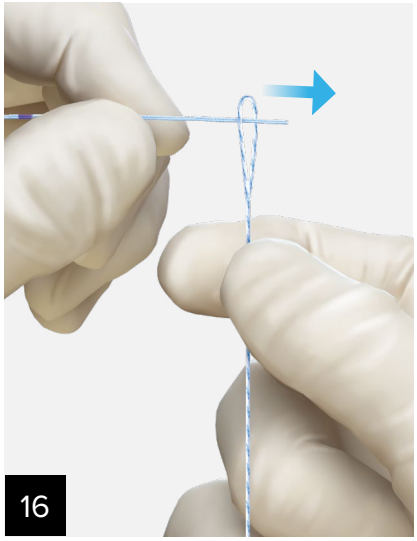
Note: The blue repair stitch goes with the blue/white conversion suture and the white repair stitch goes with the white/black conversion suture.



Using a Knee Scorpion™ suture passer, advance the second repair suture (solid color) through the meniscal root tissue on the opposite side of the mattress stitch, moving away from the root tear.



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



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. Complete the repair by tightening both repair sutures.

Final 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 cm PassPort Button™ cannula SD SutureLasso™ 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 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.

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