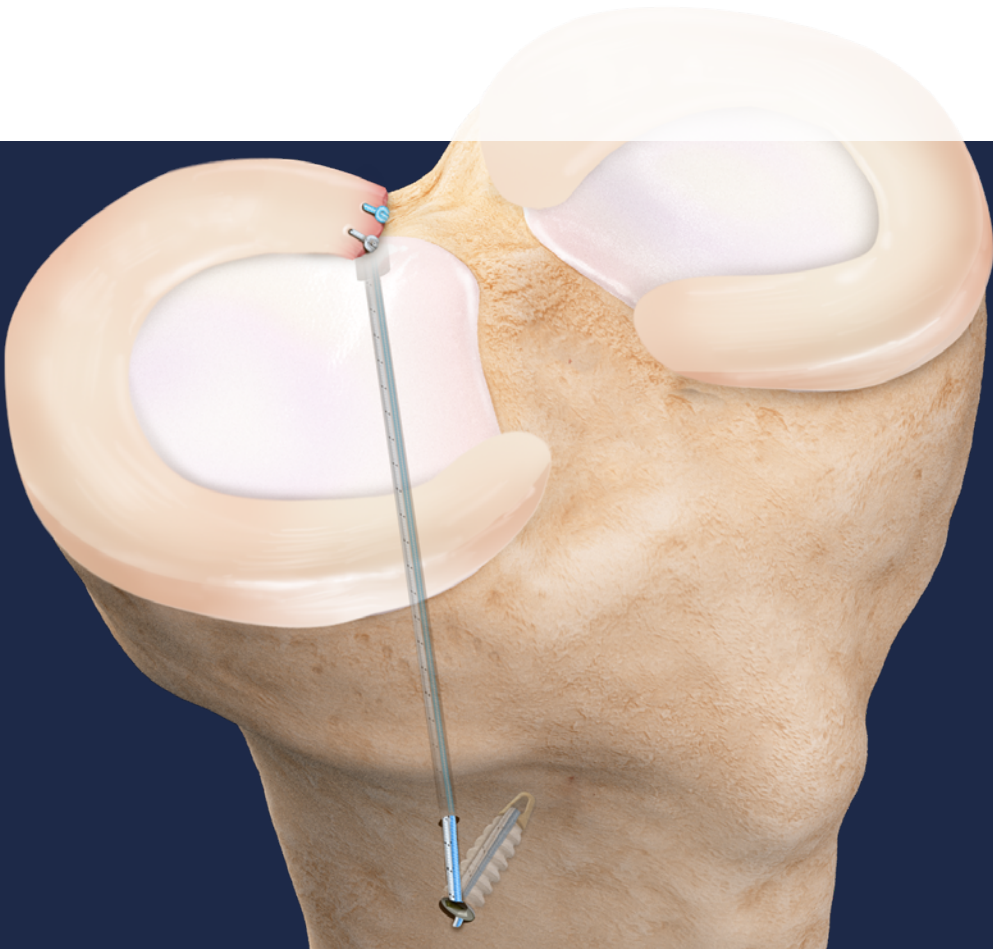


Meniscal Root Avulsion Repair

Surgical Technique



Introduction

Meniscal root avulsions are challenging injuries causing meniscal extrusion and loss of hoop stress distribution, which can lead to the development of knee arthritis.¹ Securing the meniscus in a small bone socket has proven to be an effective means to restore hoop stresses and improve outcomes.² The FlipCutter II reamer and meniscal root marking hook allow for a minimally invasive retroconstruction repair technique that preserves bone while securing meniscal tissue.

With 2 points of stability for drilling and preparing the bone socket, the meniscal root marking hook can be adjusted to an offset of 5 mm, 7.5 mm, or 10 mm from the posterior tibia. Additionally, the drill sleeve can be rotated to the optimal tunnel location without disengaging the marking hook.

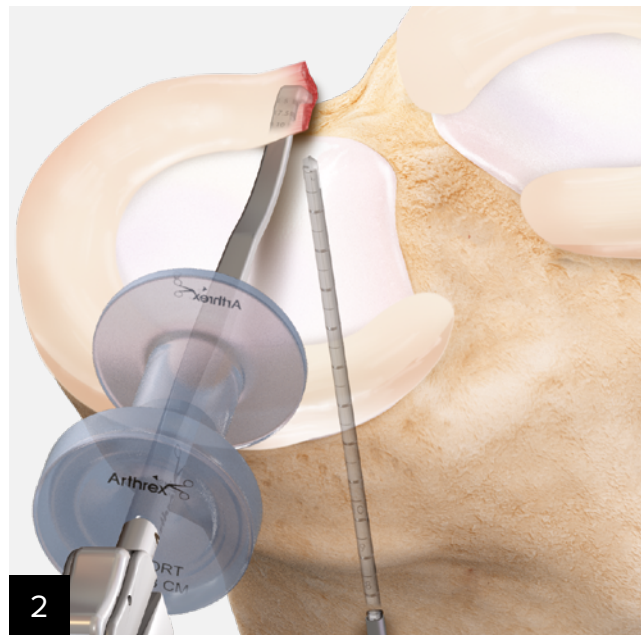
Create a socket for tissue reduction using the FlipCutter II reamer. The FlipCutter II reamer and Knee Scorpion suture passer are ideal for meniscal root repair and transplantation. In a single step, pass 0 or 2-0 FiberWire suture using the versatile Knee Scorpion suture passer. Its low-profile jaw allows access to tight spaces in the knee for various stitch configurations.

Arthroscopic evaluation and preparation: Confirm detachment from the tibial plateau while probing the meniscal root. Identify the location on the tibial plateau where reattachment of the meniscus is desired. This should be as anatomical as possible without excessive stress or deformation of the tissue when pulled to that area. A chondro pick attachment, Apollo RF MP90 probe, or burr can be used to mark this location for later reference. If visualization or instrumentation is difficult because of a tight joint space, it may be helpful to partially flatten the tibial spine with a PoweRasp shaver and/or perform a small posterior notchplasty with an arthroscopic burr.

Tibial Socket Creation



Engage the lock to prevent rotation of the marking hook while introducing the guide into the joint through a PassPort Button cannula.

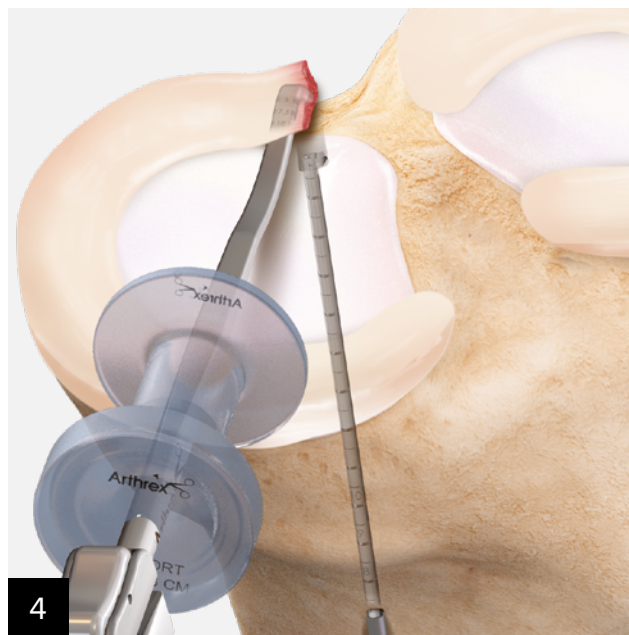


Position the marking hook over the back of the tibia at the desired location for tissue reattachment.



3

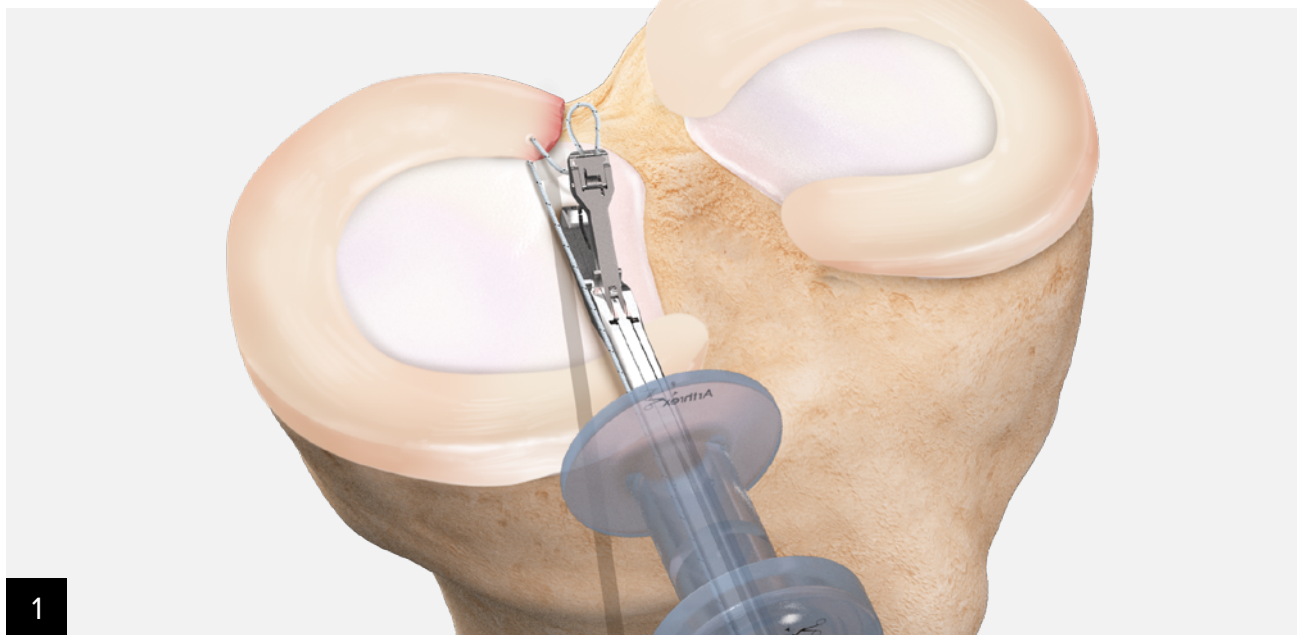
Adjust the offset by depressing the button on the locking guide and aligning the laser marks with the desired offset.



4

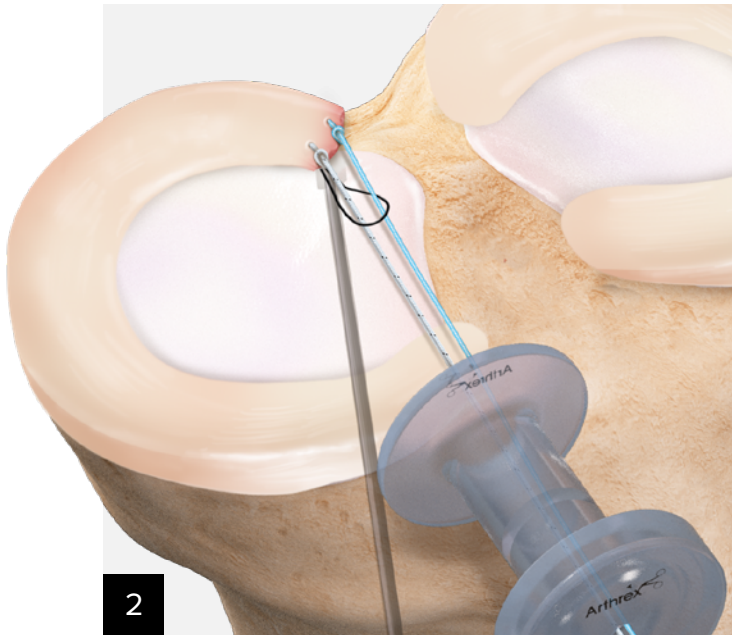
Use a 6 mm FlipCutter reamer to create a bone socket. Drill on a forward setting and pull back until the socket has reached a depth of approximately 5 mm.

Suture Passing



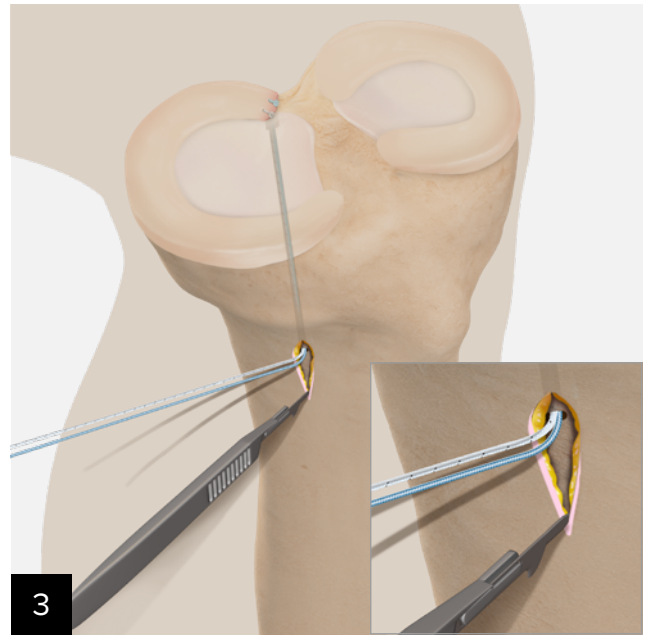
1

The Knee Scorpion suture passer can be used to pass a size 0 TigerLink suture to create a cinch stitch. The size 0 FiberLink suture can be passed to create a second cinch stitch.



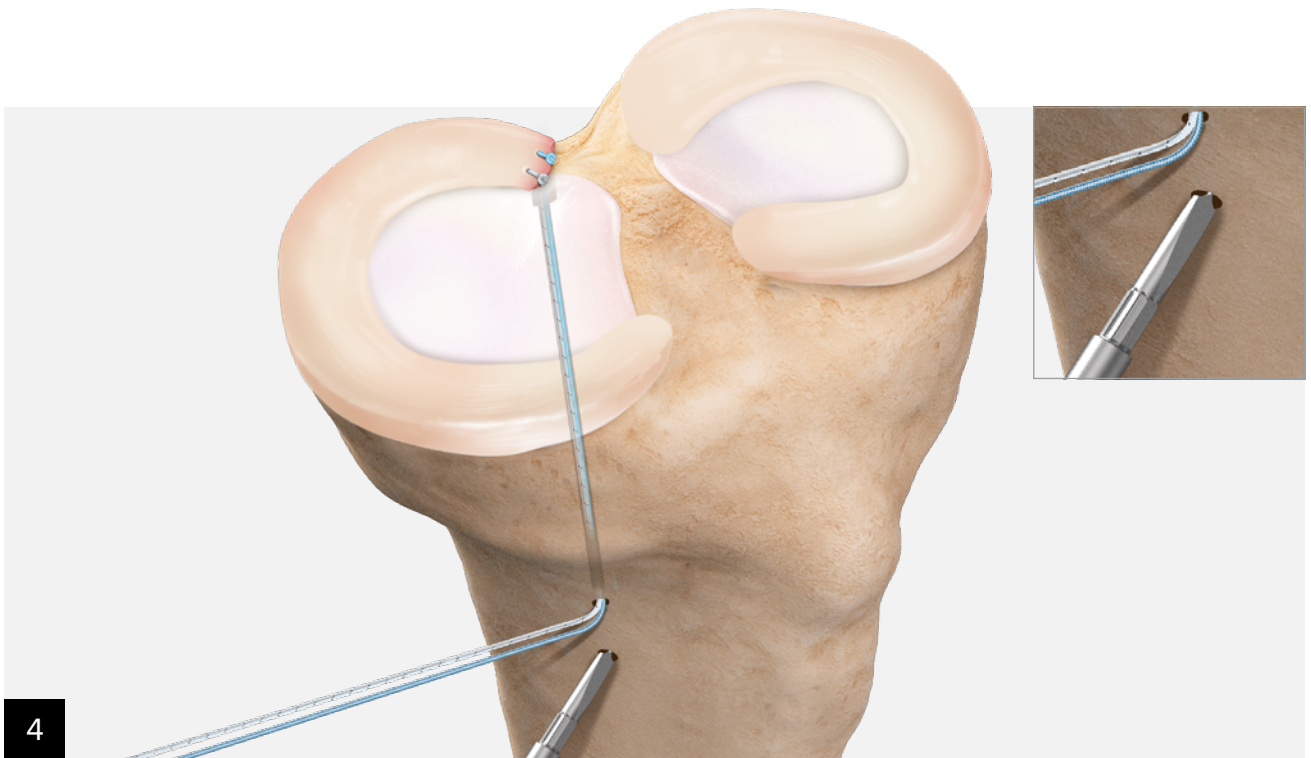
2

Use the SutureLasso needle and passing wire to shuttle the suture to the anterior tibia.



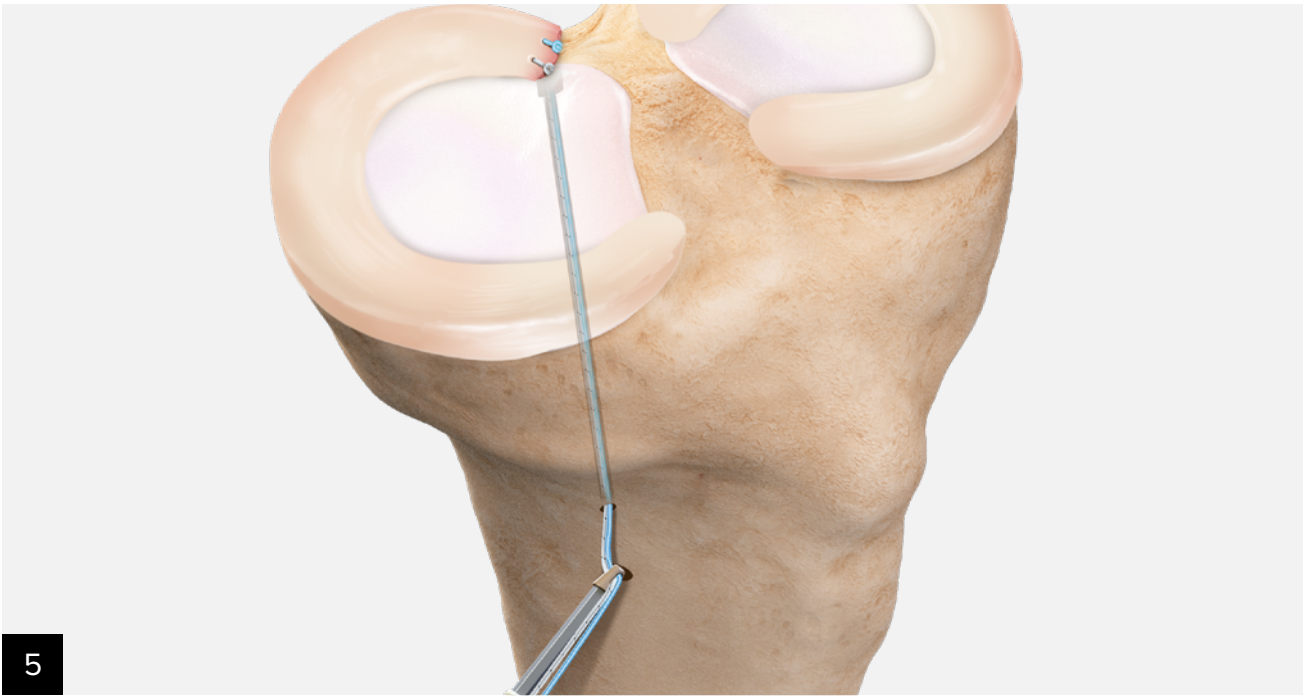
3

Extend the tibial incision 1 cm distal from the transtibial bone preparation.

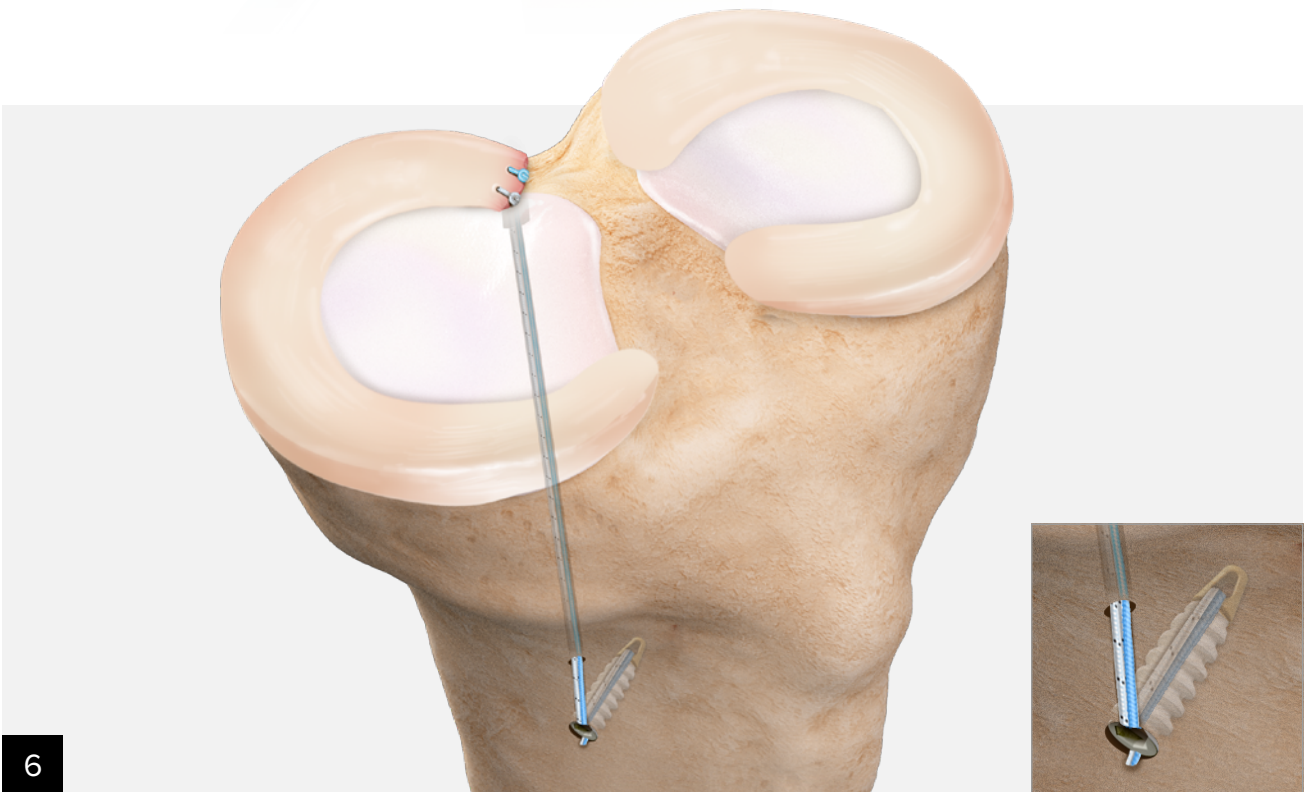


4

Use the spade-tip drill bit to prepare a socket for the anchor. The socket should be prepared to the depth of the positive stop collar on the spade-tip drill, representing a 20 mm depth. For hard bone, the 4.75 mm SwiveLock anchor tap should be used.



Pass the suture(s) through the eyelet of the 4.75 mm BioComposite SwiveLock anchor. Tension the suture(s) to achieve an anatomic reduction of the meniscal root and place the anchor into the drill hole until the eyelet is fully seated. Maintain tension on the suture(s) and advance the SwiveLock anchor into the tibia.



Final construct: After removing the driver, the eyelet retention suture can be removed.

Ordering Information

Meniscal Repair and Resection Instruments and Kits

Product Description	Item Number
Meniscal repair and resection set case	AR-4555C
RetroConstruction™ drill guide handle, side release	AR-1510HR
Drill sleeve, for side-release handle, ratcheting, stepped	AR-1510FS-7
Insert, for stepped drill sleeve, 2.4 mm	AR-1204F-24I
Meniscal root marking hook	AR-1610MR
Locking guide, for meniscal root marking hook	AR-1610LG
Drill, cannulated, 2.4 mm, with passing wire	AR-1594D-24
Knee Scorpion™ suture passer	AR-12990
Knee Scorpion™ needle	AR-12990N
FiberLink™, SutureTape, white / blue, 0.9 mm, with closed loop	AR-7559
TigerLink™, SutureTape, white / black, 0.9 mm, with closed loop	AR-7559T
Mini suture retriever, straight, 2.75 mm	AR-11540F
MegaBiter™ punch, straight	AR-41006
MegaBiter punch, up-curved	AR-41026
MegaBiter punch, straight, left	AR-41006L
MegaBiter punch, straight, right	AR-41006R
Arthroscopic measurement probe, 60°, 220 mm	AR-4070-01
Probe, 3.4 mm hook	AR-10010
Meniscal repair rasp	AR-4130
Meniscal Root Repair Kit With PEEK SwiveLock® Anchor	AR-4550P
Knee Scorpion™ needle	AR-12990N
FlipCutter® II reamer, 6 mm	AR-1204AF-60
PassPort Button™ cannula, 8 mm × 3 cm	AR-6592-08-30
2-0 FiberStick™ suture, qty. 2	AR-7222
SutureLasso™ needle, with nitinol passing wire	AR-4560
0 FiberLink™ suture	AR-7258
0 TigerLink™ suture	AR-7258T
SwiveLock® anchor, PEEK, 4.75 mm × 19.1 mm	AR-2324BCC
Drill bit, spade tip	AR-1927D
SwiveLock® anchor tap, hard bone	AR-1593-5
Meniscal Root Repair Kit	AR-4550
Knee Scorpion™ needle	AR-12990N
FlipCutter® II reamer, 6 mm	AR-1204AF-60
PassPort Button™ cannula, 8 mm × 3 cm	AR-6592-08-30
#2-0 FiberStick™ suture, qty. 2	AR-7222
SutureLasso™ needle, with nitinol passing wire	AR-4560
Suture button, 2-hole, 3.5 mm	AR-8920
#0 FiberLink™ suture, qty. 2	AR-7258

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

- Pagnani MJ, Cooper DE, Warren RF. Extrusion of the medial meniscus. *Arthroscopy*. 1991;7(3):297-300. doi:10.1016/0749-8063(91)90131-g.
- Lee JH, Lim YJ, Kim KB, Kim KH, Song JH. Arthroscopic pull-out suture repair of posterior root tear of the medial meniscus: radiographic and clinical results with a 2-year follow-up. *Arthroscopy*. 2009;25(9):951-958. doi:10.1016/j.arthro.2009.03.018.



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