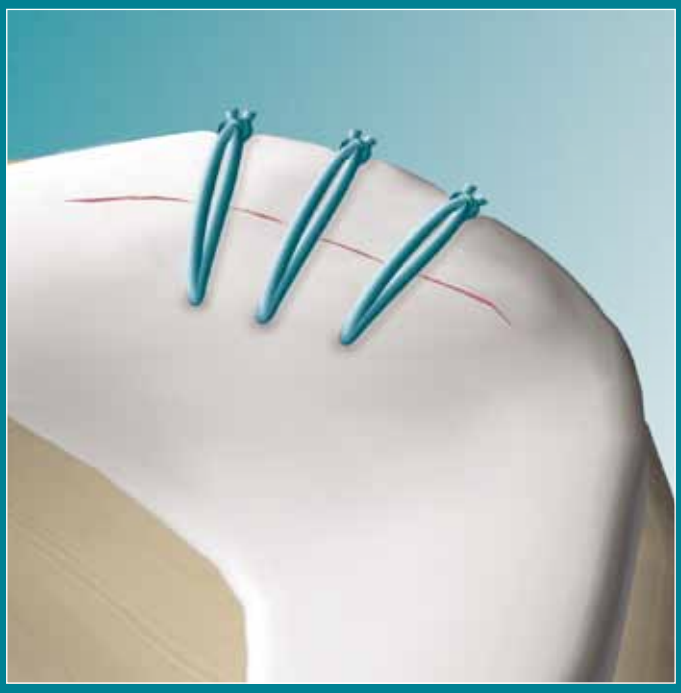
Arthrex®

Arthroscopic All-Inside Meniscal Repair with the Meniscal Viper™ & DartStick™

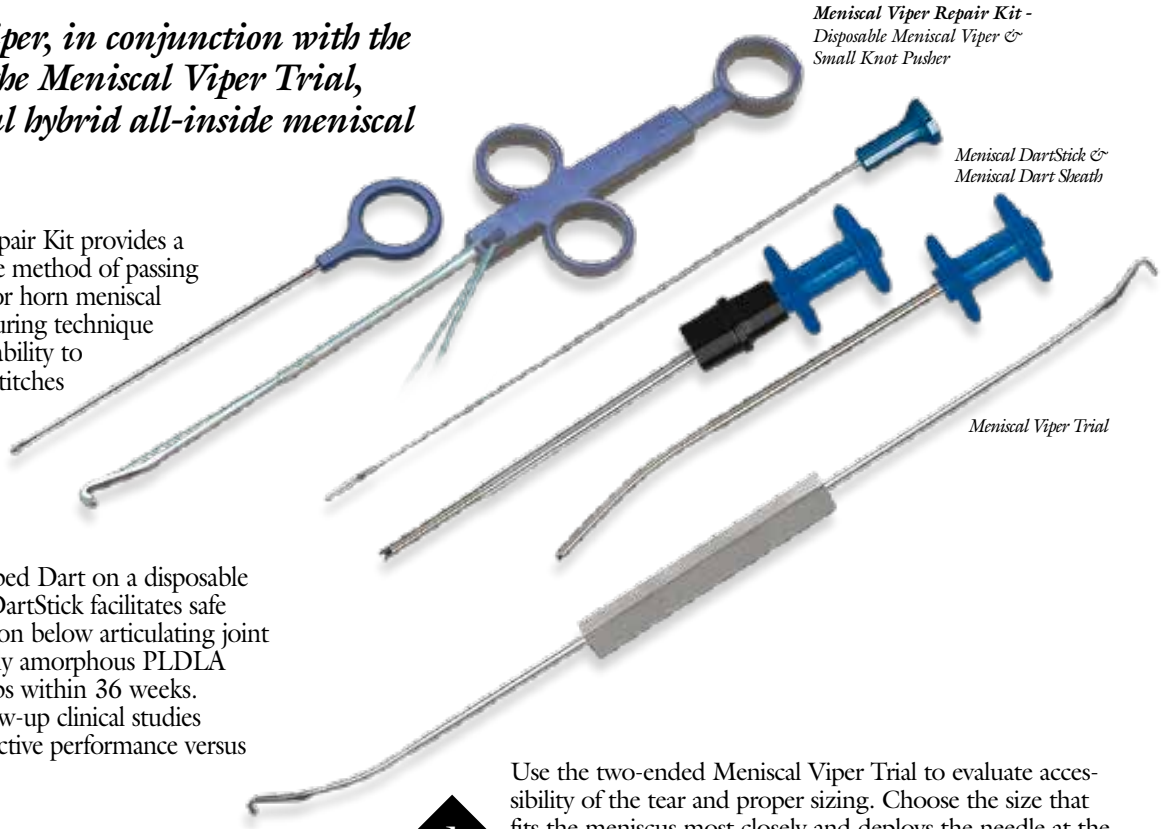
Surgical Technique



Arthroscopic Meniscal Repair

Arthroscopic All-Inside Meniscal Repair

The Meniscal Viper, in conjunction with the DartStick and the Meniscal Viper Trial, provides the ideal hybrid all-inside meniscal repair system.

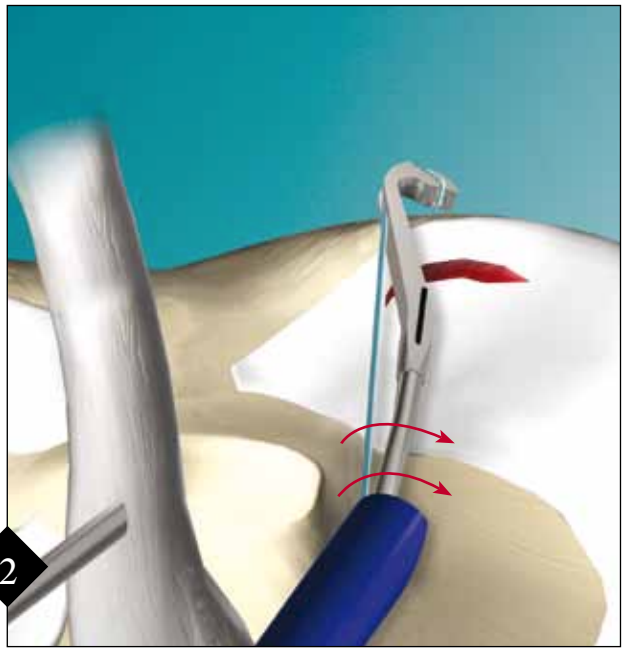


The Meniscal Viper Repair Kit provides a convenient and effective method of passing suture to repair posterior horn meniscal tears. The all-inside suturing technique offers the surgeon the ability to place multiple vertical stitches without needle passage through the capsule.

A headless, reverse-barbed Dart on a disposable inserter, the Meniscal DartStick facilitates safe countersunk implantation below articulating joint surfaces. The completely amorphous PLDLA copolymer safely absorbs within 36 weeks. Multiple two-year follow-up clinical studies document safe and effective performance versus headed devices.

1

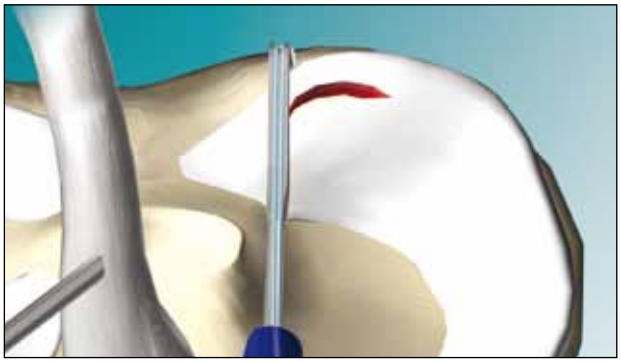
Use the two-ended Meniscal Viper Trial to evaluate accessibility of the tear and proper sizing. Choose the size that fits the meniscus most closely and deploys the needle at the appropriate location. The laser line marks the exit point of the needle.

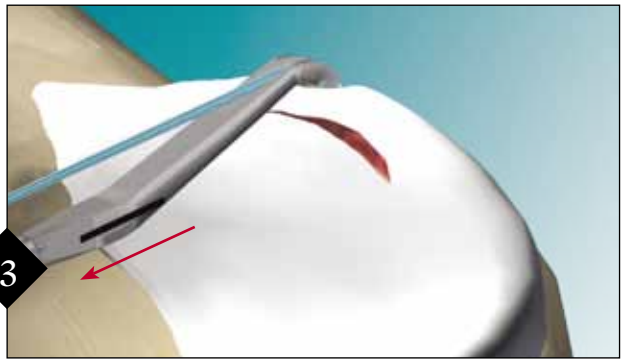


2

The Shoehorn™ Cannula may be used to aid insertion of the Viper into the joint space and reduce fat pad interference during the knot tying phase of the procedure. The low profile, anatomically curved shaft of the Viper facilitates insertion in tight joint spaces. ***Note: It is imperative that the Viper is not levered into place either under or around the condyle.***

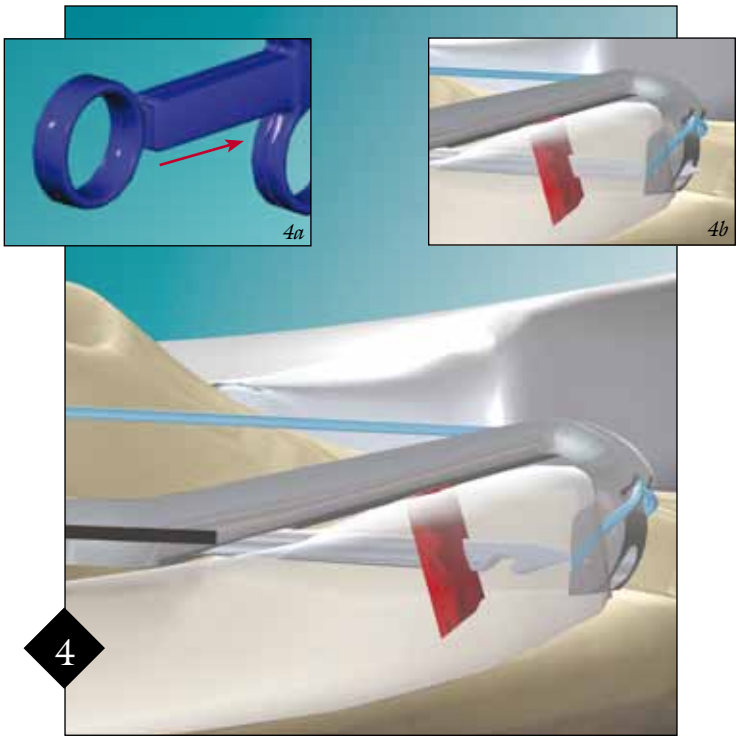
The tip is inserted on its side through the intercondylar notch, or along the capsule. Once over the meniscal rim, the Viper is rotated down into position.



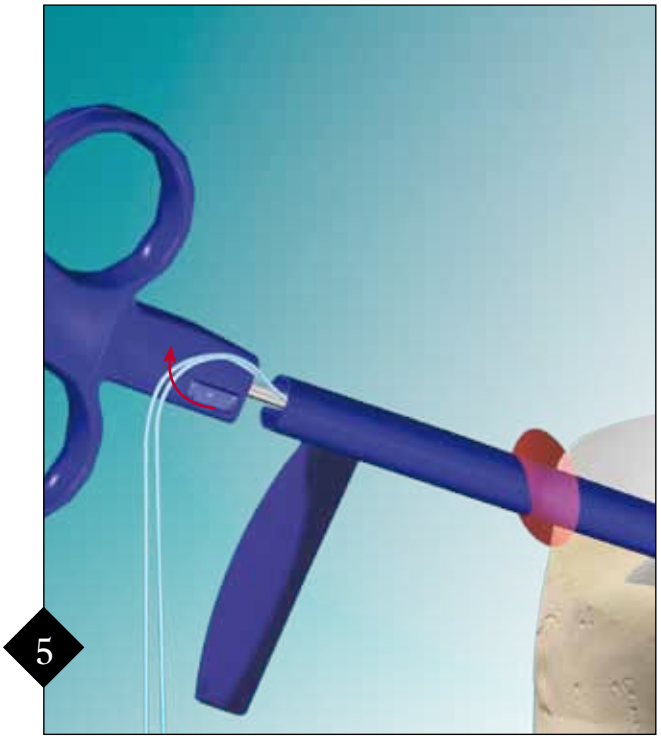


3

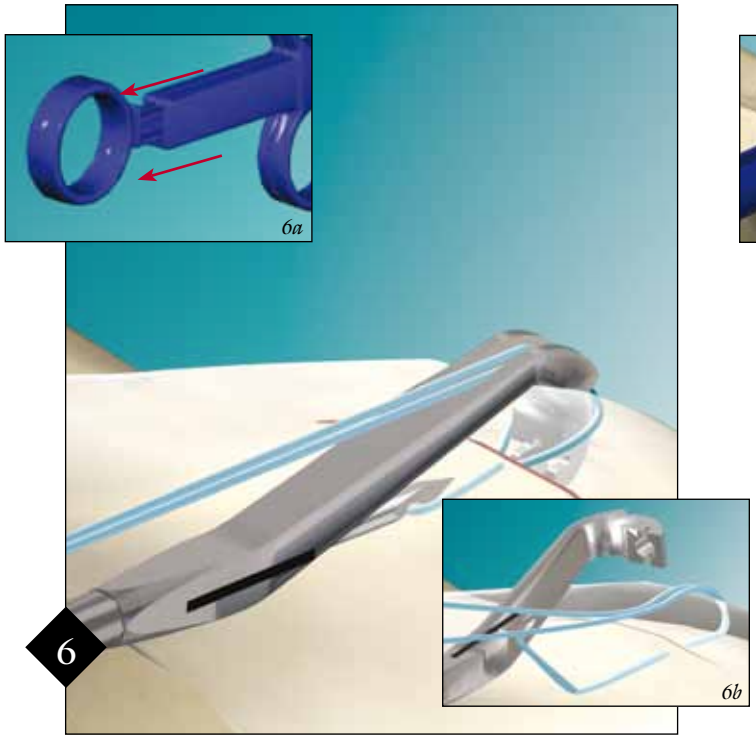
The curved up, low profile shaft also allows sliding of the Viper tip along the meniscal rim into position over the tear site. Slight retraction of the hook provides sufficient back pressure to reduce the tear. The laser line of the shaft indicates needle entry position and angle.



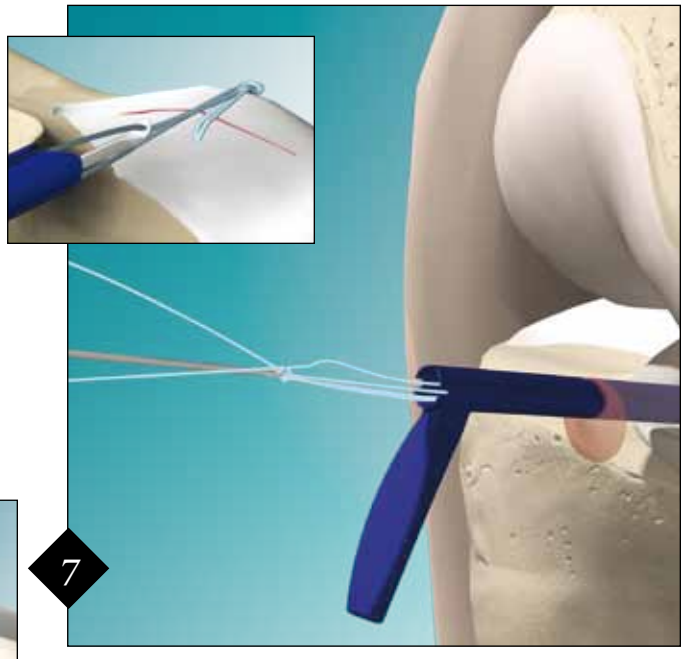
To pass the needle through the tear, the thumb ring is deployed forward until the positive stop rests against the plastic housing of the handle (4a). The tactile "click" felt through the Viper thumb ring and handle indicates the needle has fully advanced and has captured the suture (4b).



Once the needle has captured the suture, the surgeon or surgical assistant must release the suture from the handle clip prior to pulling back on the thumb ring and retracting the needle.



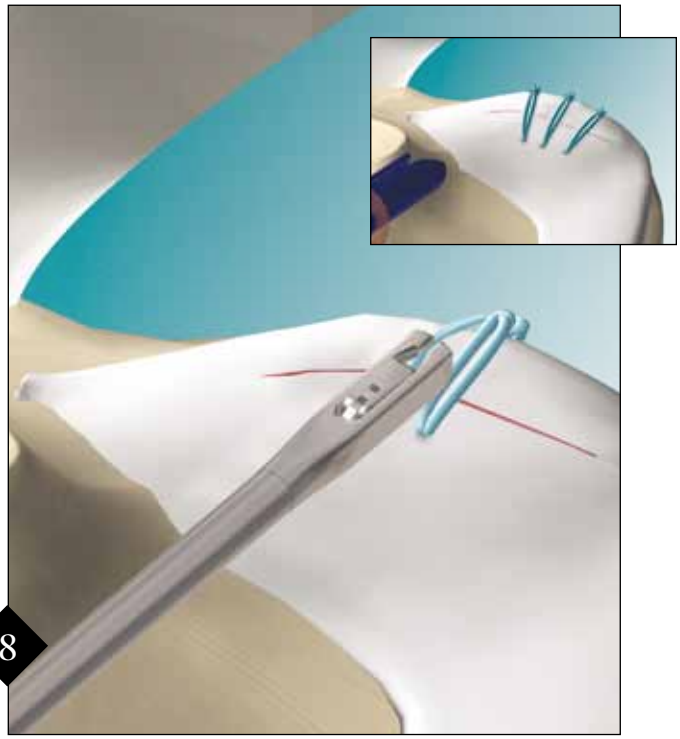
The needle is retracted by pulling back on the thumb ring (6a). The needle with the captured suture loop should be visualized exiting the meniscus and fully retracted into the needle shaft housing prior to removal of the Viper from the joint space. The Viper tip is then rotated 90° and removed through the notch or along the capsule (6b).



The suture loop is extracted from the joint space. If the suture is damaged during extraction, a replacement suture is placed in the suture loop and shuttled through the meniscus. The slotted Shoehorn Cannula is inserted over the sutures.

A simple racking hitch loop is created *(refer to diagram A, back page)* and both free suture tails are fed through the loop.

The two ends are pulled, drawing the racking hitch into the joint and reducing the tear. One suture tail is placed into the Small Knot Pusher and multiple reversing half-hitches are advanced to secure the knot. The knot pusher may then be loaded onto both suture tails to rotate the secured knot over the posterior rim of the repaired meniscus.



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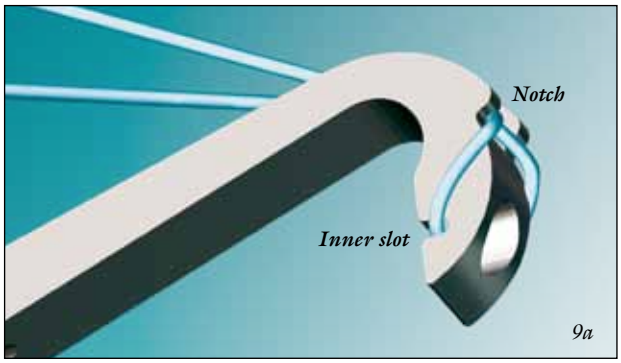
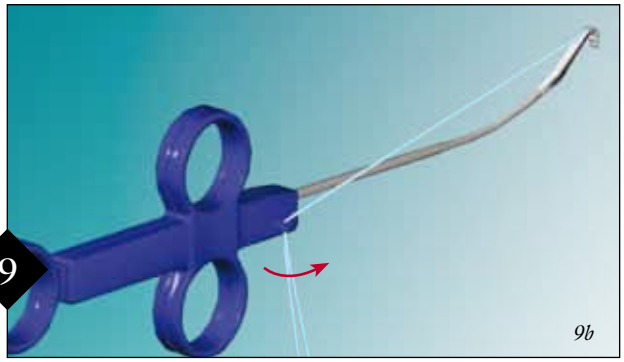
The remaining 2-0 FiberWire® is cut with the 2-0 Suture Cutter. Multiple vertical stitches may be placed with the same Meniscal Viper for the entire procedure to maximize efficiency and cost reduction.





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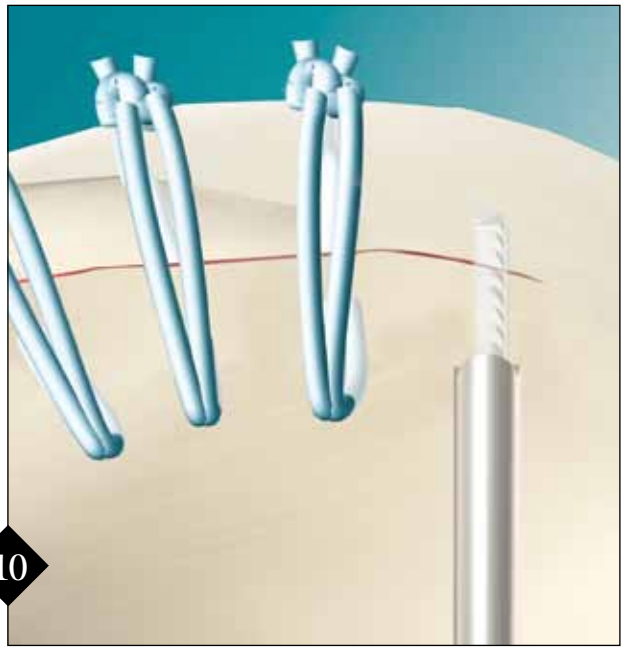
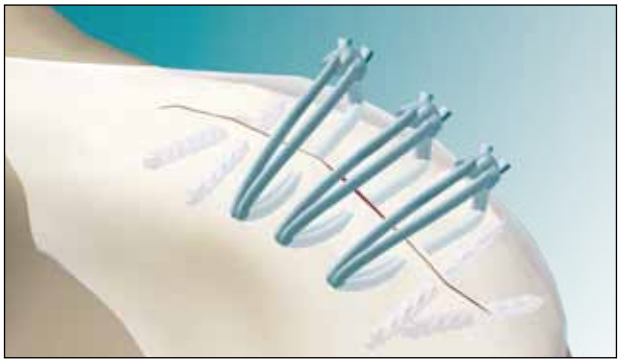
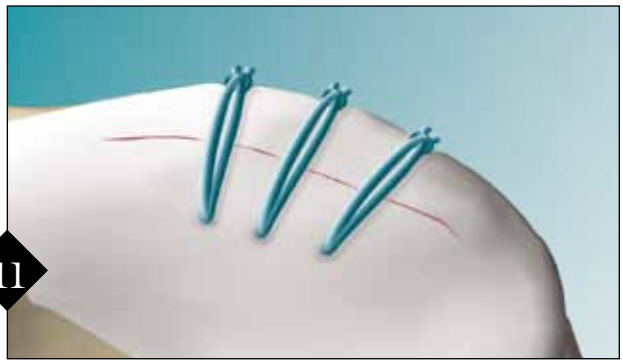
To reload the device, place a 2-0 FiberWire suture loop into the inner slot on the underside of the Viper tip. While holding both suture limbs close to the Viper tip, twist the instrument 180° and pull the crossed sutures back up over the roof and into the notch (9a). The free suture tails are then secured in the clip located on the side of the blue handle (9b). The device is now ready to place another stitch.



10

The Meniscal DartStick may be used to provide tear reduction and provide additional stability in difficult to access areas of the meniscus. The straight Dart Sheath is used to place Meniscal Darts down through the femoral surface of the meniscus through the tear. The 15° curved up Dart Sheath is used to place Meniscal Darts up from the tibial surface through the tear. Through manual pressure or with the light tap of a mallet, the inserter makes contact with the back of the sheath and the dart is countersunk 1 mm below the surface of the meniscus.





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The option for placing all-inside vertical FiberWire sutures and/or Meniscal Darts provides the most stable and safest solution to arthroscopic hybrid all-inside meniscal repair.

Ordering Information

Meniscal Viper Repair Kit, disposable, small, sterile	AR-13920DS
Meniscal Viper Repair Kit, disposable, medium, sterile	AR-13930DS

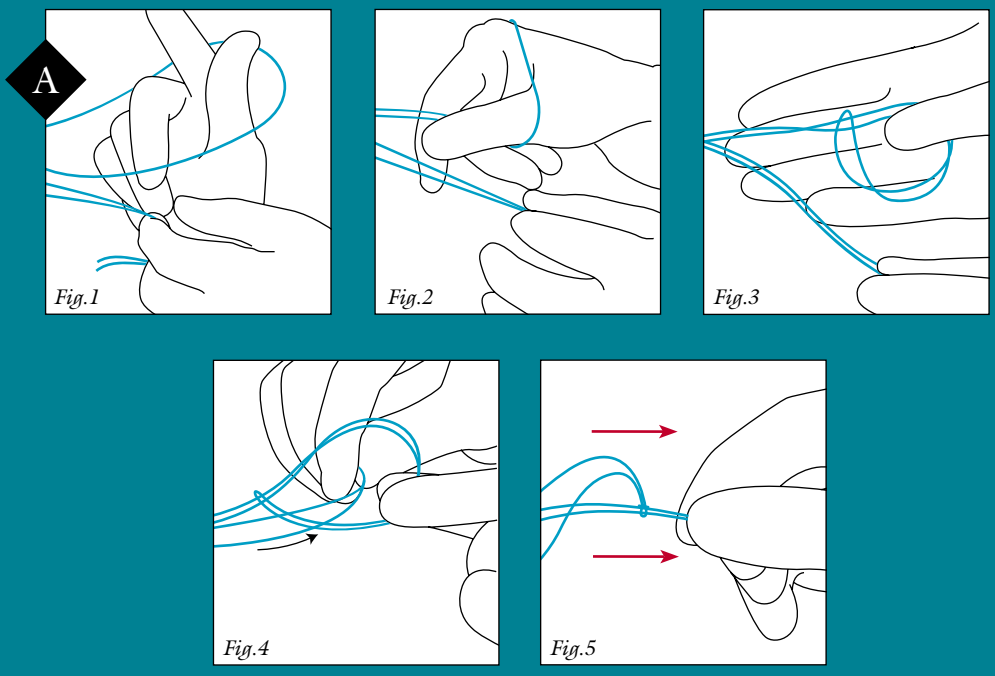
(Each single use, sterile kit includes a Meniscal Viper preloaded w/ 2-0 FiberWire and a Small Knot Pusher)

Recommended Suture:

2-0 FiberWire, 38 inches, qty. 12	AR-7221

Optional Instruments and Accessories:

Meniscal Viper Trial	AR-13920T
Meniscus Repair Rasp	AR-4130
2-0 Suture Cutter, 15˚ Up Curve	AR-11791
Meniscal Dart Sheath w/Cannula, straight, sterile	AR-3007
Meniscal Dart Sheath w/Cannula, 15˚ up, sterile	AR-3007-15
Meniscal DartStick, 10 mm, sterile, qty. 3	AR-3007B-10
Meniscal DartStick, 12 mm, sterile, qty. 3	AR-3007B-12
Meniscal DartStick, 14 mm, sterile, qty. 3	AR-3007B-14
Shoehorn Cannula, 6 mm I.D. x 9 cm, sterile	AR-6565



To create the racking hitch, make a loop in the suture (Fig. 1 & 2) by placing the thumb and index finger through the loop delivered by the Viper needle. The loop should look similar to what is shown in Fig. 3. Place both tails of the suture through the loop as shown in Fig. 4. The two ends are pulled, drawing the racking hitch knot into the joint, reducing the tear (Fig. 5).

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.

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