# Hip Capsular Closure Using LoopLoc™ Knotless Implants and the CapsuleStitch™ Suture Passer

Surgical Technique

Arthrex®
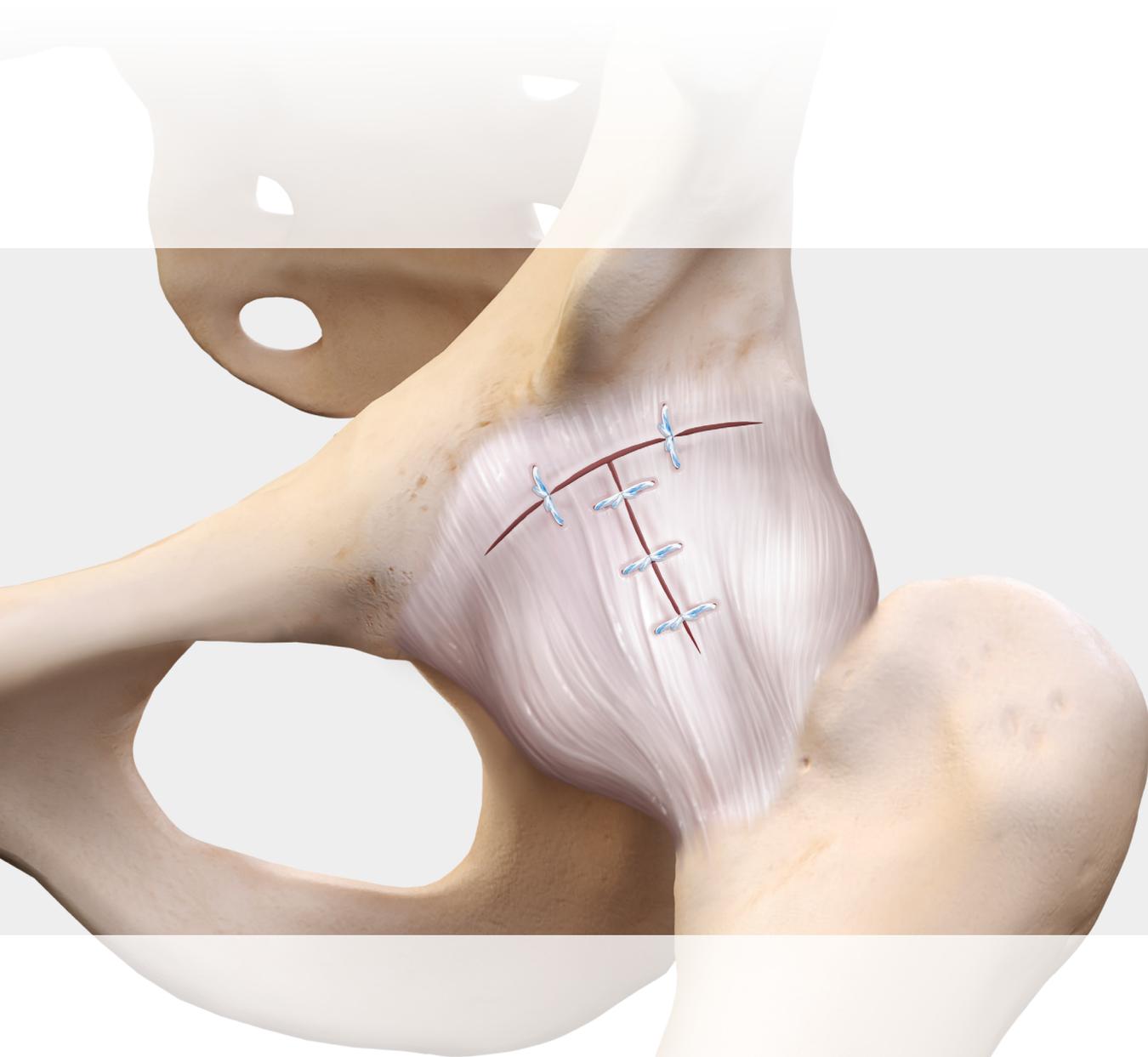
LoopLoc™ Knotless Implant

The LoopLoc knotless implant is designed to reapproximate hip capsular tissue following a capsulotomy during hip arthroscopy.

With a knotless construct, the implant provides an alternative to closing the hip capsule with traditional sutures that require knot tying.

**Advantages of the LoopLoc Knotless Implant**

- Low profile

- Eliminates knot stacks

- Removes variability of knot strength from surgeon to surgeon

- Loaded on a step-by-step suture management card for ease of use
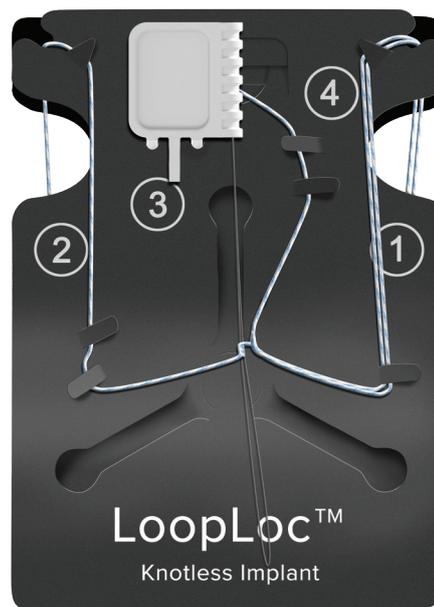
Biomechanical Strength and Performance

The LoopLoc implant provides considerable advantages over traditional sutures used to close the hip capsule with knotted techniques. Eliminating knot stacks potentially reduces the risk of suture impingement in the soft tissues surrounding the hip capsular tissue left behind when tying knots with #2 Vicryl® or other nonabsorbable suture.[1]

Additionally, the LoopLoc knotless implant construct was found to have a 39.9% stronger ultimate load (N) than a #2 Vicryl suture knotted construct at time zero.[1]

Average Ultimate Load (N)[1]

LoopLoc Knotless Implant	214
#2 Vicryl Suture	153
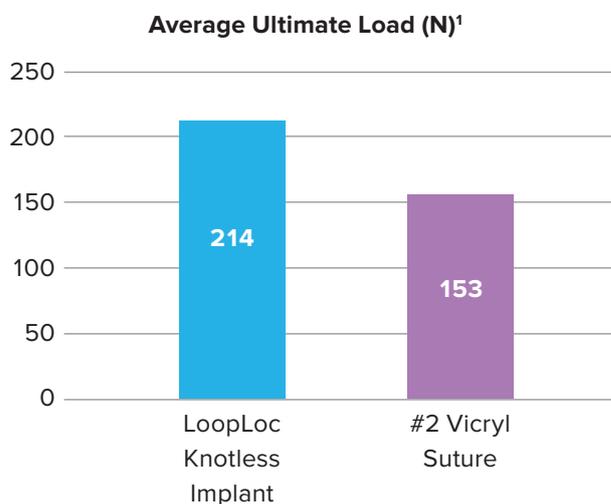
Vicryl is a registered trademark of Johnson & Johnson Medical Devices Business Services, Inc.

## Surgical Technique (Closure of a T-Capsulotomy)

1a

1b
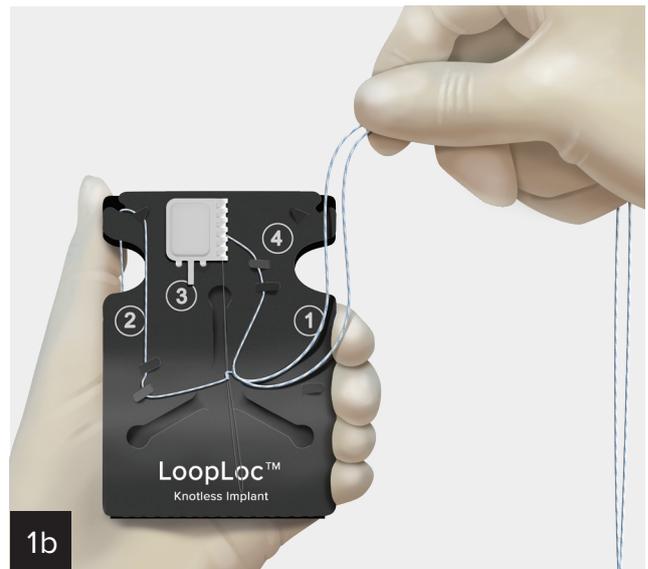
Pinch the FiberLink™ passing suture in the small cutout labeled **(1)**. Continue to pull the FiberLink suture in an upward motion until the tail is out of the card.

Note: Be cautious not to squeeze the front and back of the card together as doing so may prevent the internal suture wheel from freely spinning.


2

2a

(a)
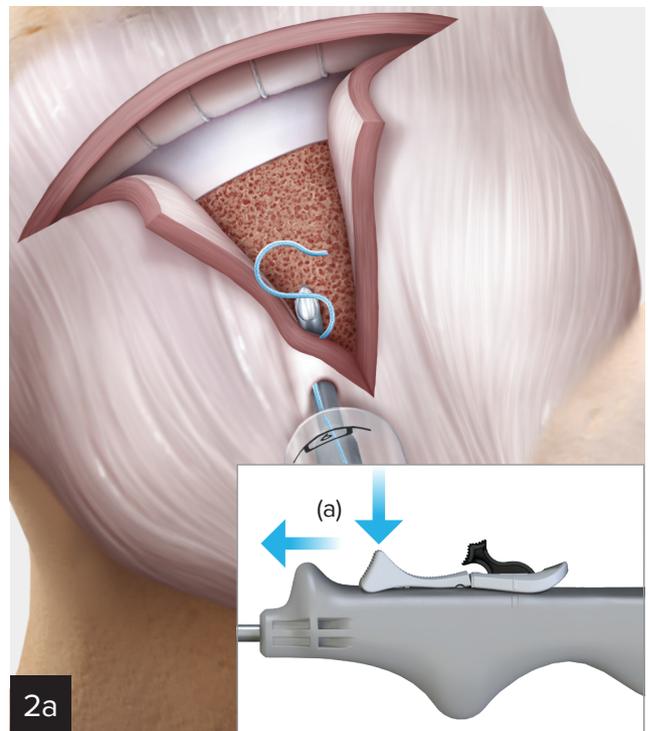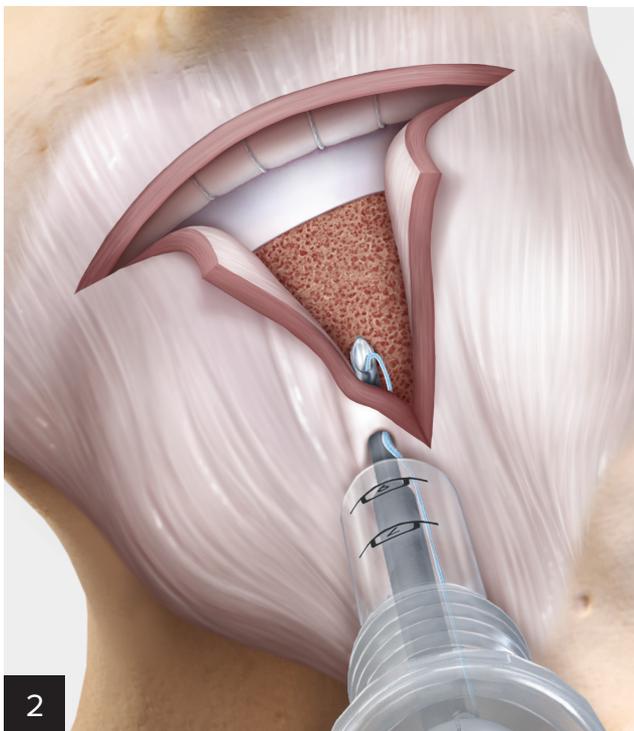
Load the tail of the FiberLink passing suture into a CaspuleStitch™ suture passer. Pierce the medial limb of capsular tissue with the CapsuleStitch suture passer and release the suture into the joint for retrieval. Push the suture underneath the capsule and into the peripheral space by pushing the white sliding actuator down and forward **(a)**.
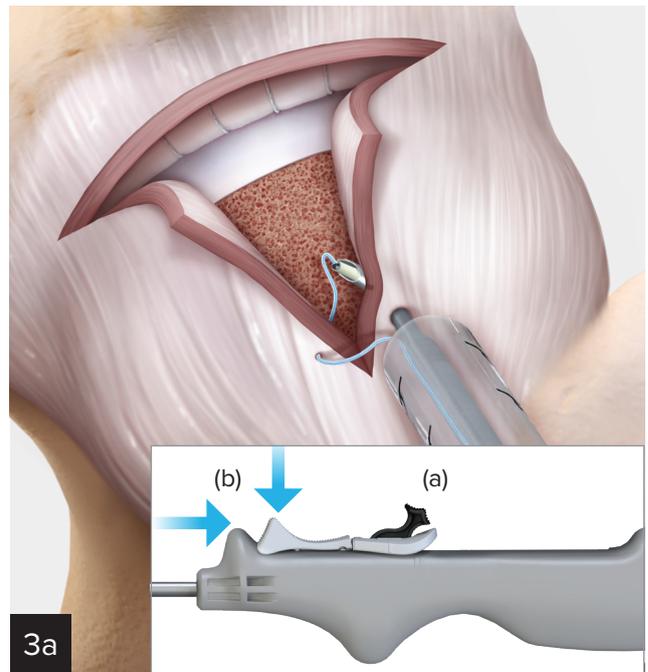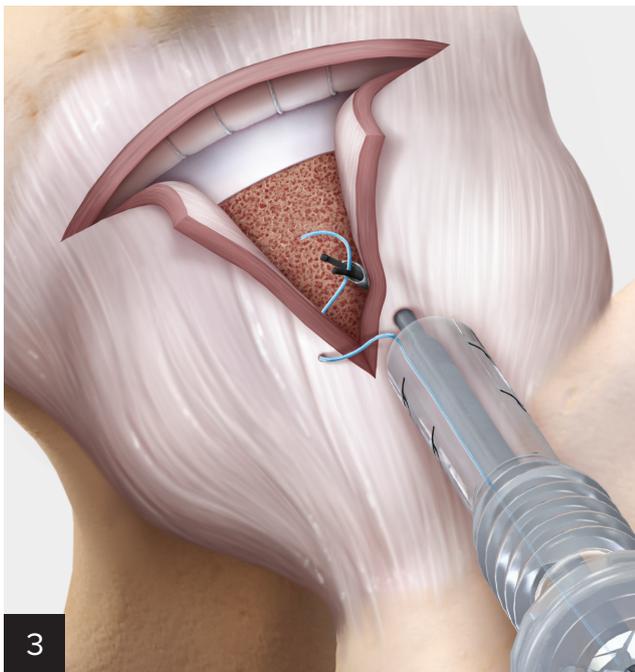
Pierce the lateral limb of capsular tissue with the CapsuleStitch™ suture passer to retrieve the tail of suture left in the joint during the previous pass. Once the suture is loaded into the nitinol jaws, pull the black switch backward to capture the suture with the PEEK tubing **(a)**. Push down and move the white sliding actuator backward until the suture is located inside the bend of the needle for added suture retention strength **(b)**.
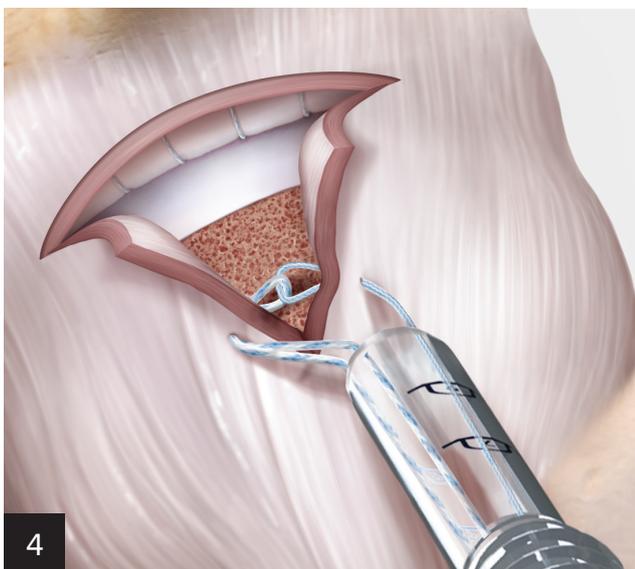

Pull the tail of the FiberLink™ suture until it is outside of the cannula. This will shuttle the LoopLoc™ implant through the two limbs of capsular tissue.
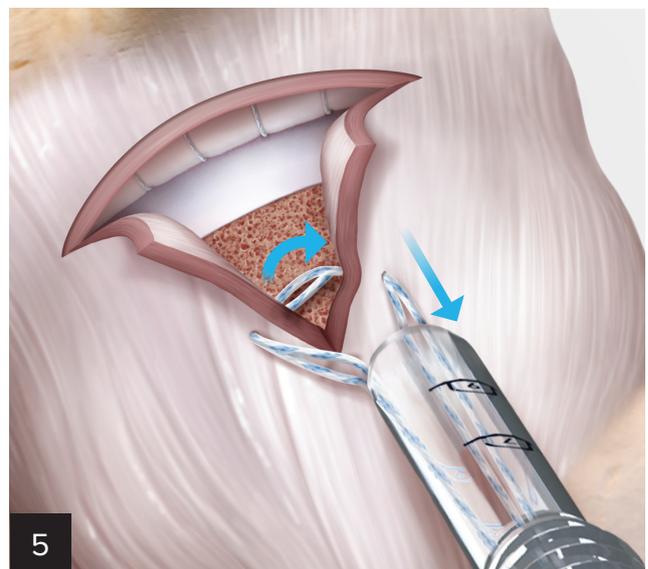

Continue pulling the FiberLink suture until the striped LoopLoc implant exits the cannula.
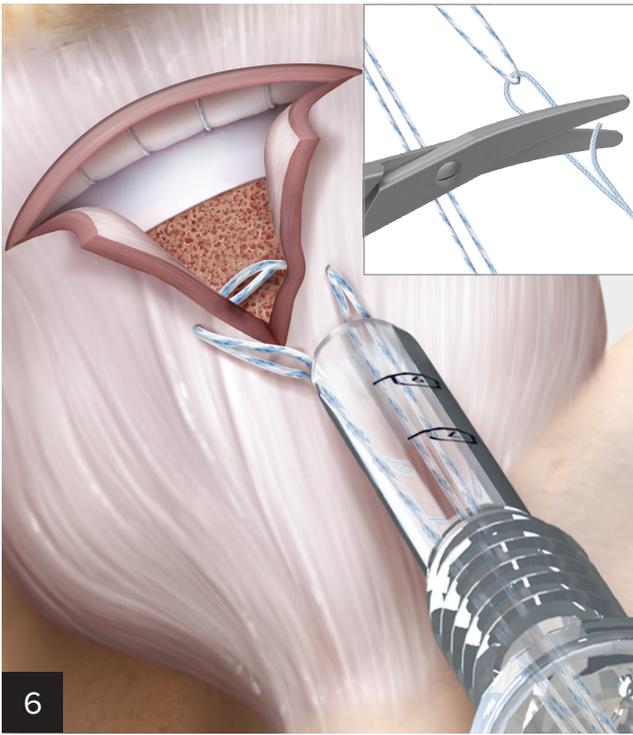
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Once the striped LoopLoc™ implant is outside the cannula, cut the loop side of the FiberLink™ passing suture with FiberWire® scissors.
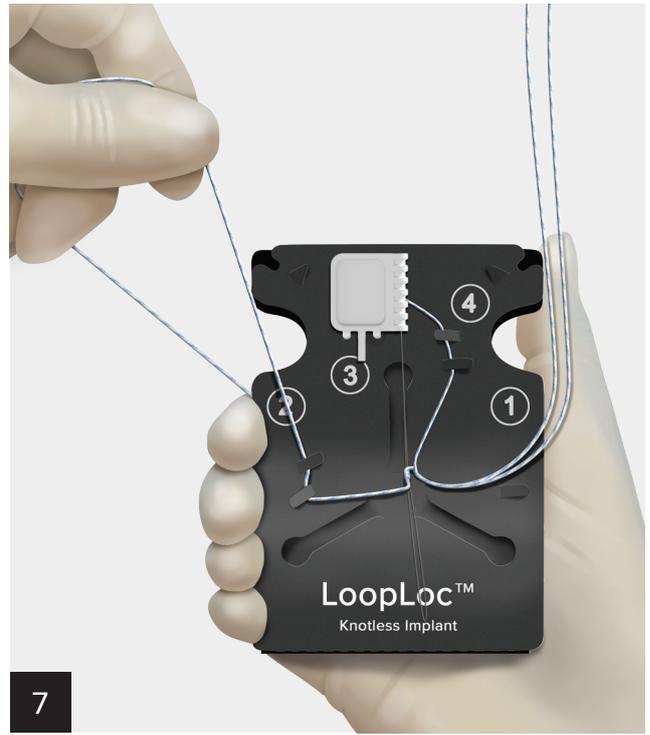

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Pinch the suture in the small cutout labeled **(2)** and pull the suture in an upward motion until the tail is out of the card.
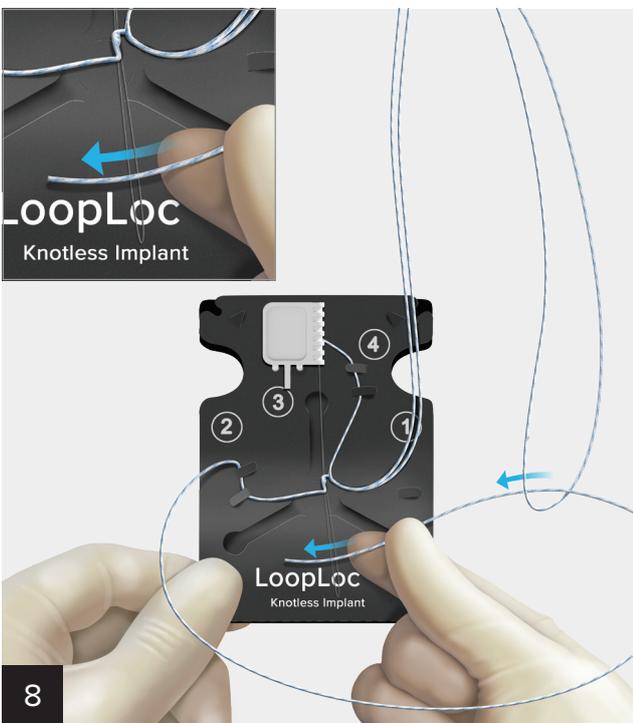

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Feed the suture tail labeled **(2)** through the loop of the LoopLoc implant and then through the suture threader.
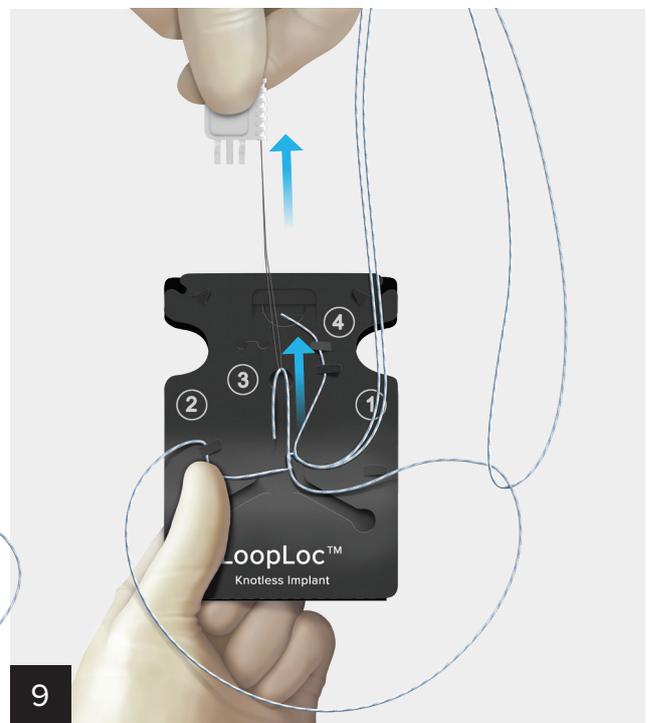

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Fold approximately 5 cm of suture over the suture threader and pull the tab labeled **(3)** in an upward motion until the suture splice is complete.
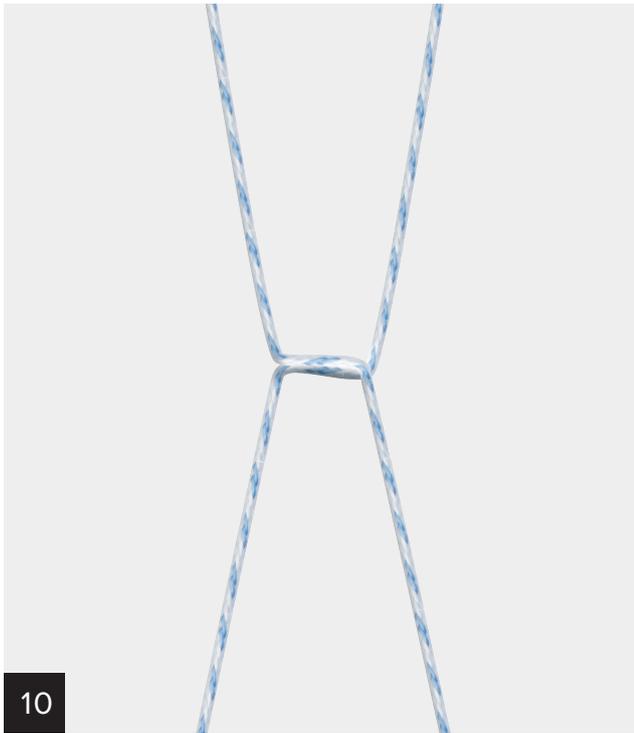
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Once the splice has been completed, remove the short suture tail labeled **(4)** and the remaining suture from the tabs and dispose of the packaging card. Even out the two strands of suture.
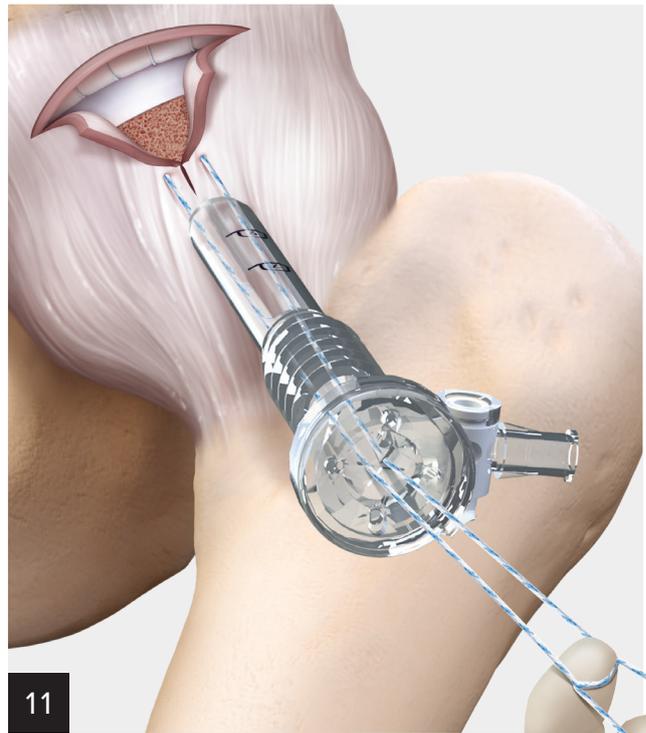

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Put one finger behind the suture splice and pull slack out of the LoopLoc™ implant until the interlocking loops are positioned under the capsule.
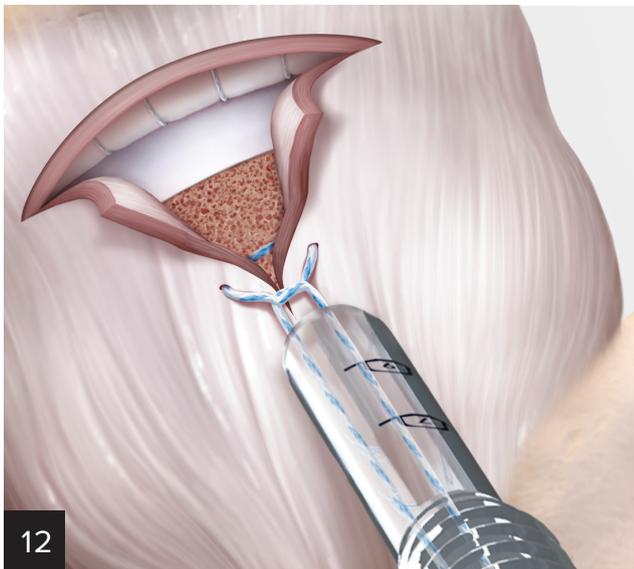
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Keep a finger, switching stick, or some method of countertension behind the suture splice and pull on each of the tensioning strands, alternating approximately 2 cm on each side until the suture splice enters the cannula and eventually seats on the two limbs of capsular tissue.
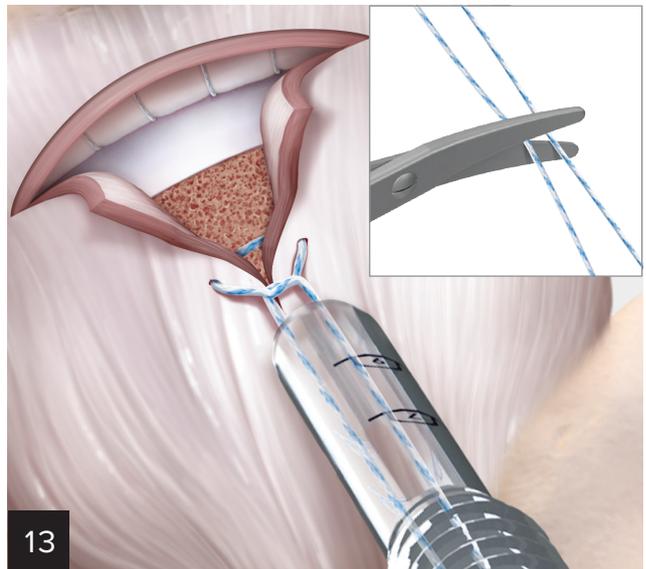
13

Note: To improve suture management, FiberWire® suture scissors may be used to cut and shorten the length of the suture strands prior to final tensioning.
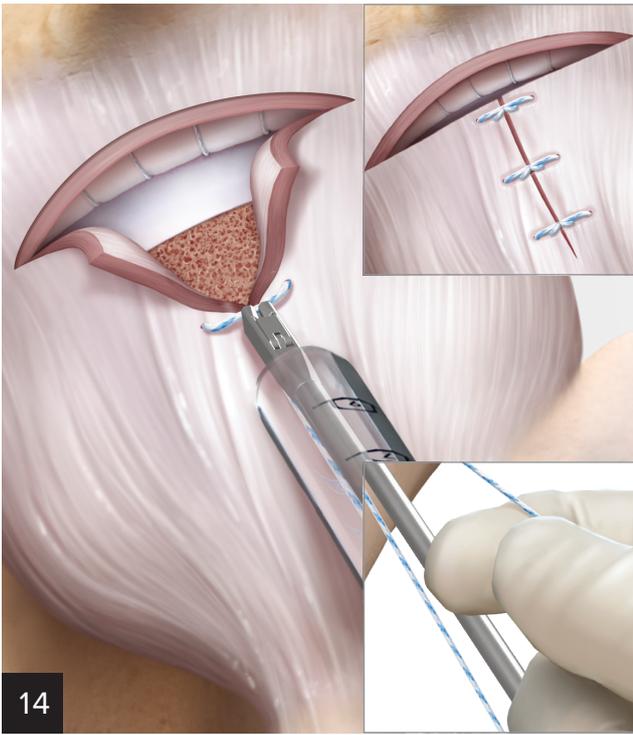
Feed both limbs of suture into the jaws of the closed suture cutter (AR-**16250** or AR-**165250W**) and advance until it is fully seated against the LoopLoc™ implant. Pull each strand of suture for final tensioning and squeeze the handle to cut the suture, leaving a 3-mm tail.
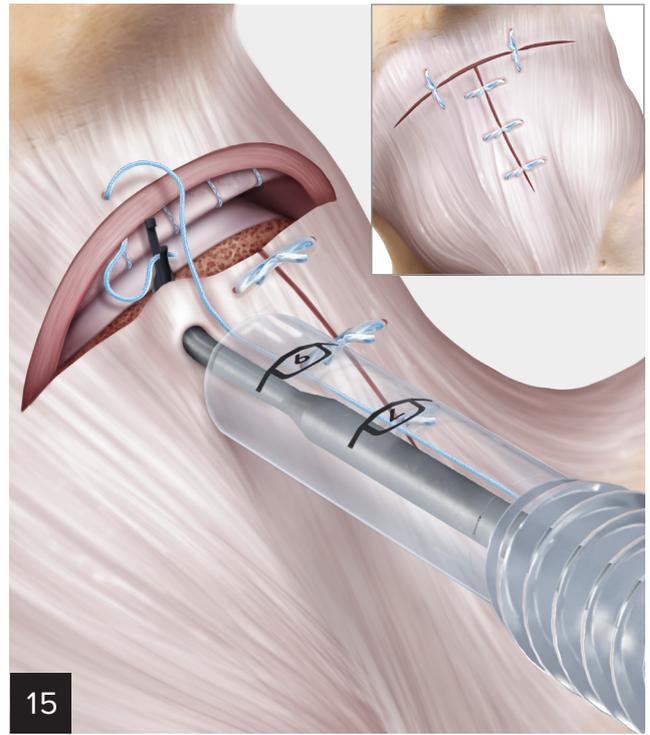
Place additional LoopLoc implants as needed to complete closure of the hip capsule.

Interportal capsulotomy closure (final fixation)

T-capsulotomy closure (final fixation)
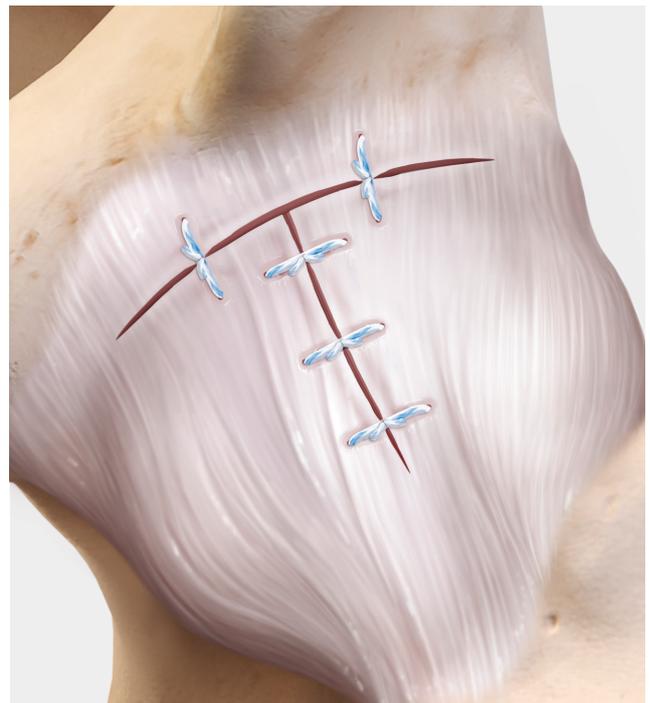
Ordering Information

Product Description	Item Number
LoopLoc™ knotless implant	AR-**2750**
CapsuleStitch™ suture passer, 70°, angled tip	AR-**7070**
Suture cutter, Ø 4.2 mm, straight shaft, 220 mm	AR-**16250**
Suture cutter, Ø 4.2 mm, straight shaft, 220 mm, w/ WishBone™ handle	AR-**16250W**

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 05180). Naples, FL; 2021.

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.

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