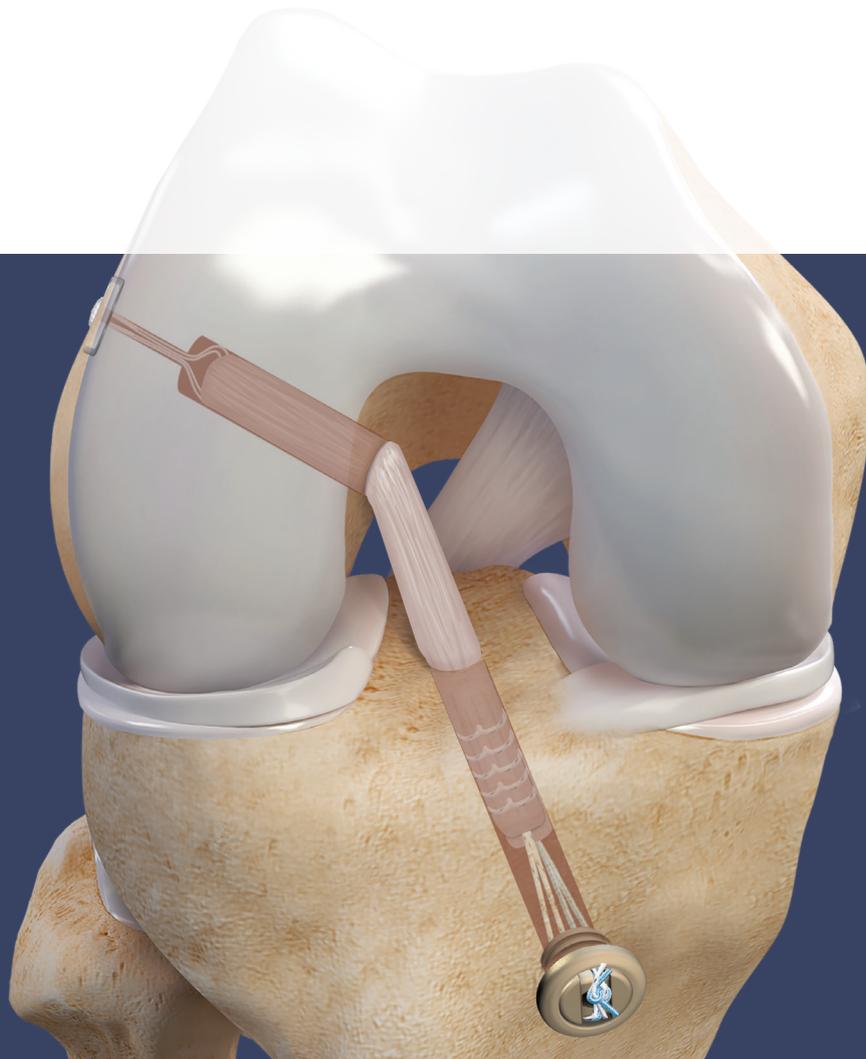


# TensionLoc™ Implant System

Single-Bundle Surgical Technique



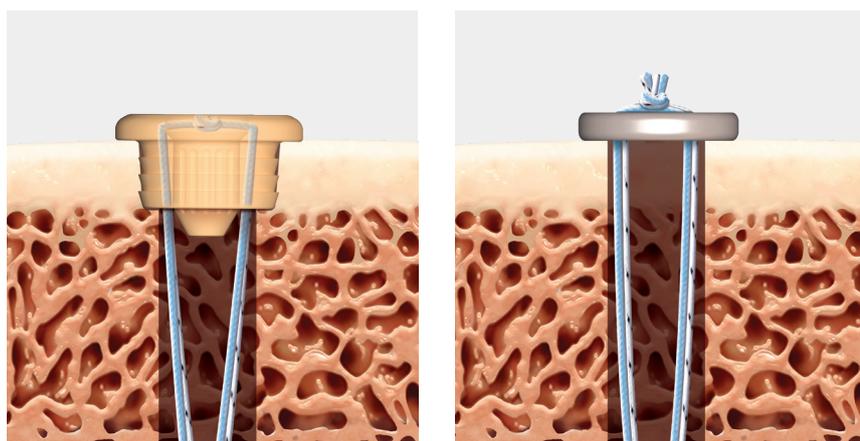
**Arthrex®** 

# TensionLoc™ Implant System

The 2-piece TensionLoc implant system is designed to fix suture during ligament reconstruction procedures. In this technique, tibial suture fixation is shown for a single- or double-bundle anterior cruciate ligament reconstruction (ACLR).



## Features and Benefits

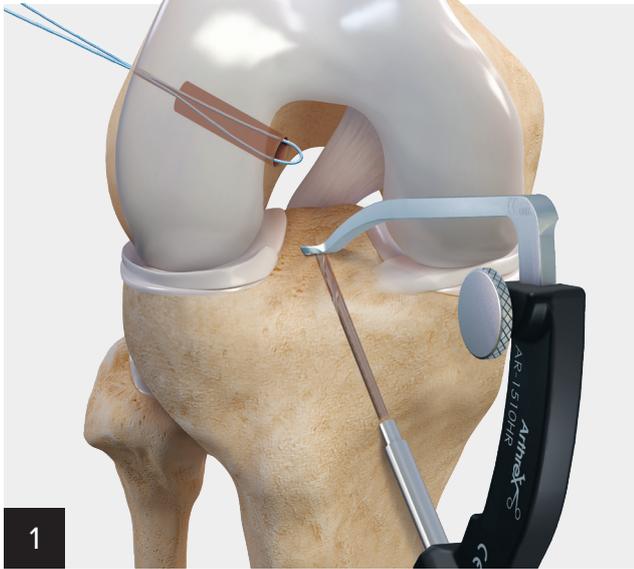


Tunnel	Implant
6 mm	7 mm
7 mm	7 mm
8 mm	10 mm
9 mm	10 mm
10 mm	10 mm
11 mm	12 mm
12 mm	12 mm

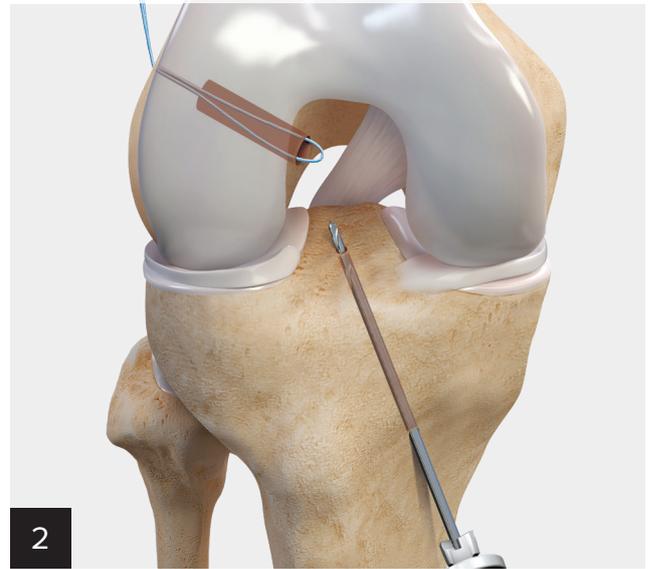
The TensionLoc implant is a unique alternative to standard suture buttons that allows maintenance of suture tension during knot tying. The low-profile PEEK implant sits flush and securely within the tunnel.

- Strong initial fixation maintains graft tension for final fixation<sup>1</sup>
- Does not appear on x-ray
- Seals off the tibial tunnel to surround the graft with the healing properties inside the proximal tibia
- Low-profile to avoid irritating surrounding soft tissue

## Single-Bundle Technique

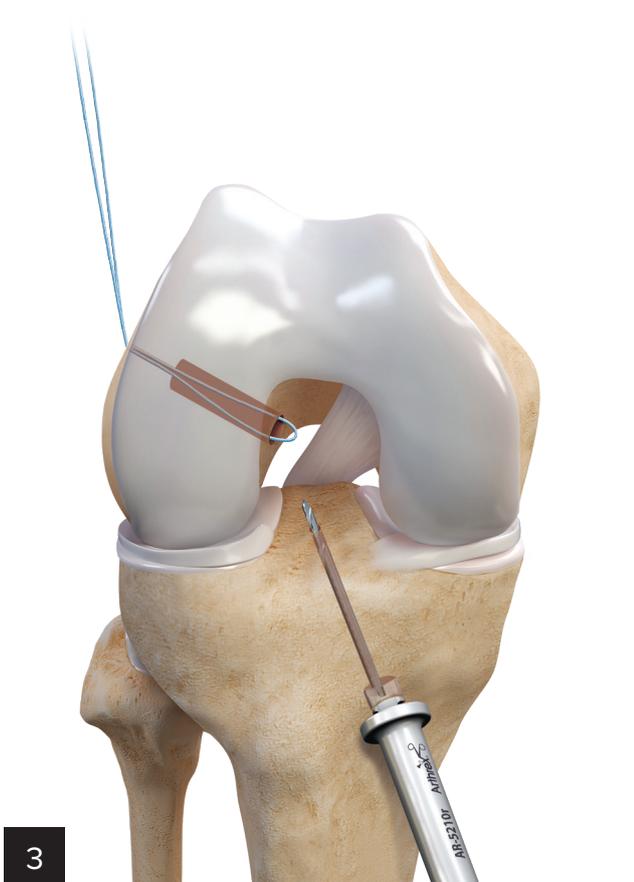


1 After femoral socket preparation, insert a 2.4 mm guide pin into the tibia at the desired approach angle.

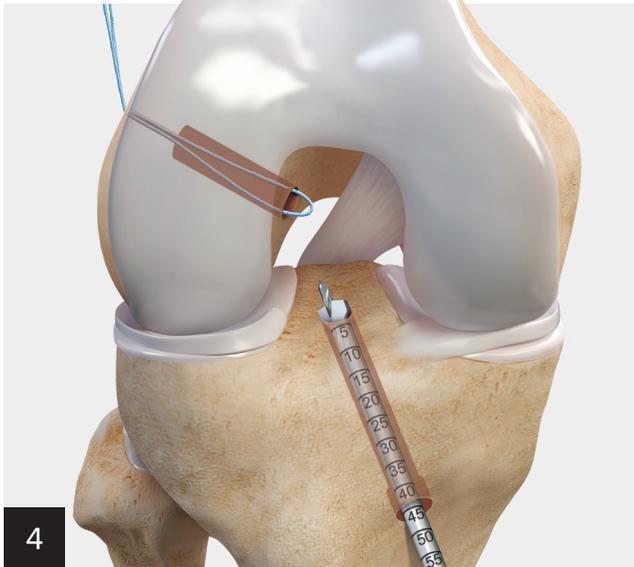


2 Select the proper depth stop reamer for the specific size of the TensionLoc™ implant (see table below). Insert onto the guide pin in tibia.

Graft Size	Implant	Reamer
6 mm	7 mm	7 mm
7 mm	7 mm	N/A
8 mm	10 mm	10 mm
9 mm	10 mm	10 mm
10 mm	10 mm	N/A
11 mm	12 mm	12 mm
12 mm	12 mm	N/A

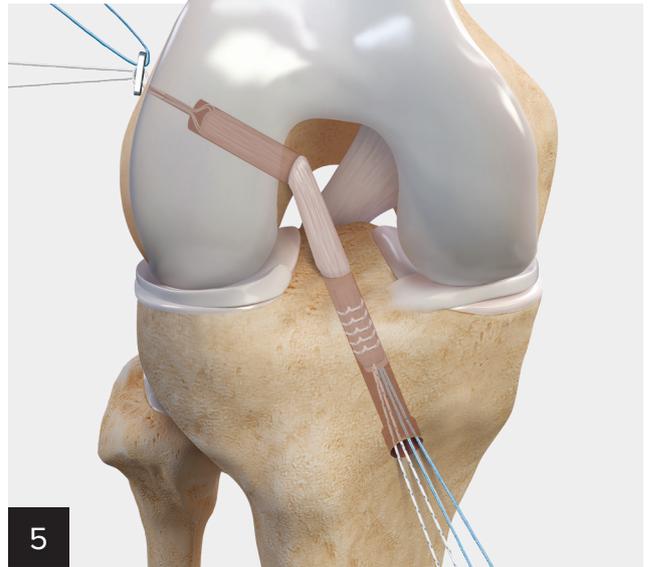


3 Ream the tibia with a stepped reamer until the depth stop bottoms out against the tibia.



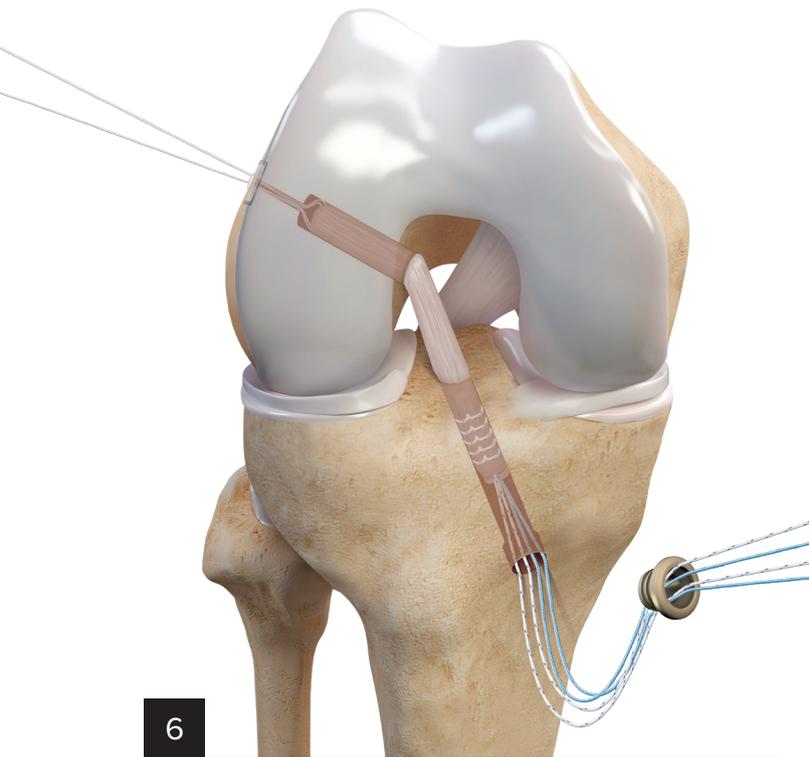
4

To complete preparation of the entire tibial tunnel, ream over the guide pin with a reamer that is the diameter of the graft to be implanted.



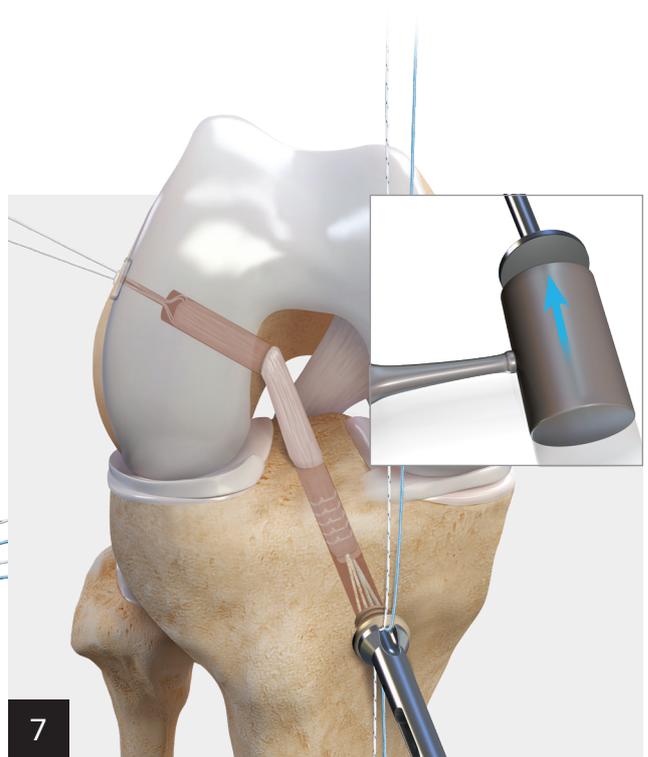
5

After inserting the graft and achieving femoral fixation using an ACL TightRope® implant, you will see the graft sutures exiting the tibial tunnel.



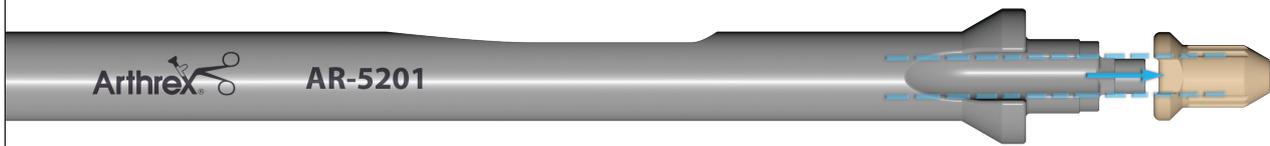
6

Thread the sutures through the collar and insert the collar into the tibia using the impactor. A guidewire may be used during collar insertion.



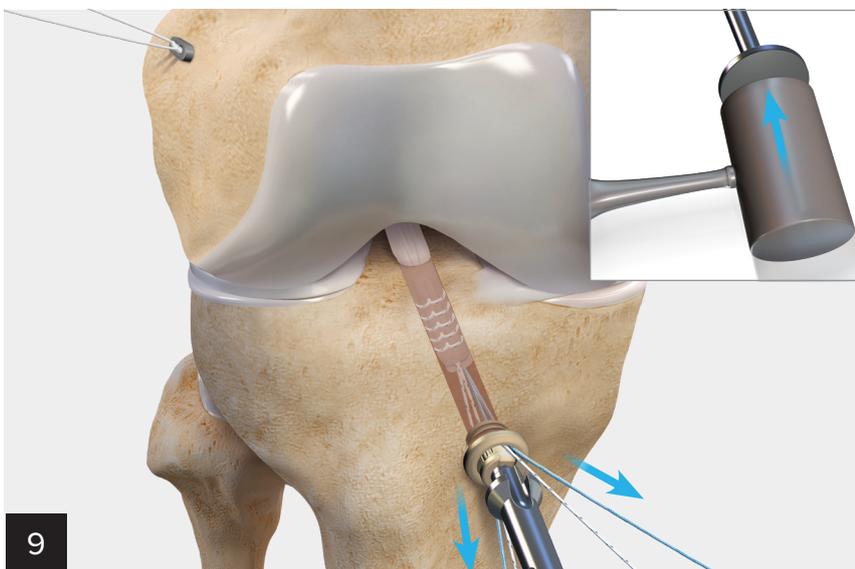
7

Place the impact driver into the collar with corresponding sutures exiting the collar through the impactor slots. **Note the position of the slots and suture for insertion of the plug.**

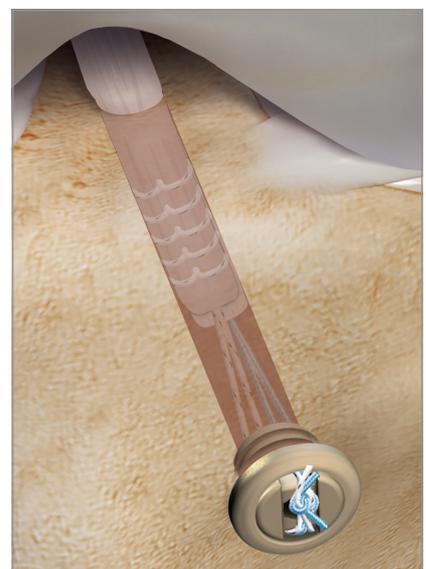


8

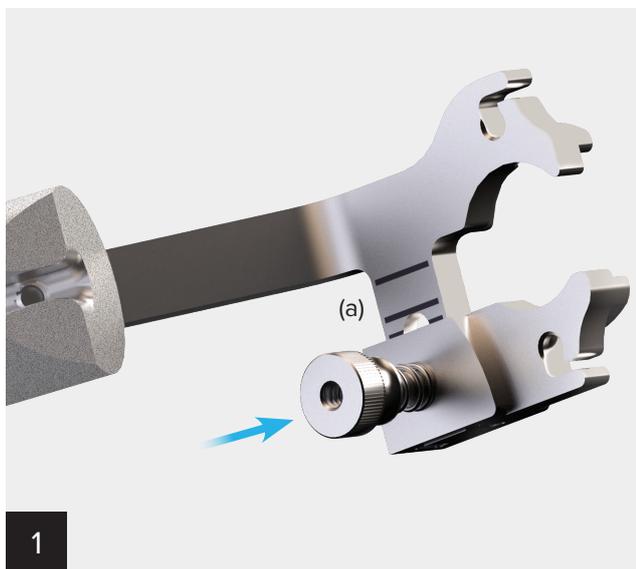
Insert the plug onto the impactor. **Note the 12 o'clock and 6 o'clock suture orientation in conjunction with the impactor orientation slots.**



9



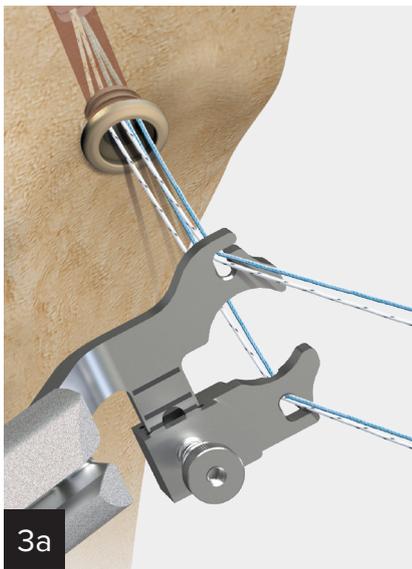
With the leg in full extension, tension the sutures and insert the plug (a guidewire may be used) between the sutures until the plug is flush with the surrounding collar. Tie a Surgeon's Knot vertically into the plug slot for final fixation. **Note: All plug, suture, and impactor slots MUST be oriented at 12 o'clock and 6 o'clock to provide optimum fixation.**



After the TensionLoc™ collar is inserted into the tibia, depress the set screw of the tensioner endpiece to adjust for the appropriate collar size. **Note: The sizes are from the top line down as follows: 7 mm, 10 mm, and 12 mm (a).**



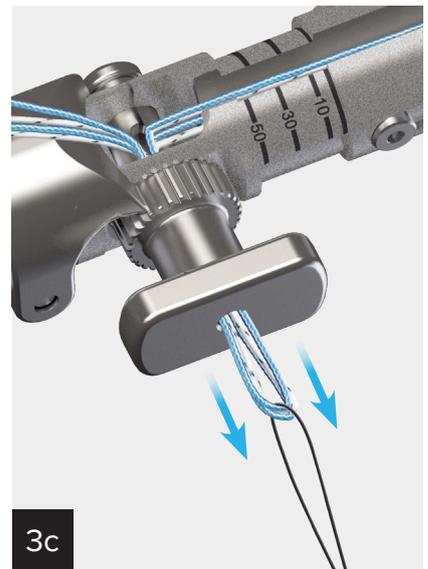
Insert a passing wire or doubled-over suture tail into the slot of the ratcheting tensioner handle. Thread the wire through the handle, leaving the loop out of the ratchet.



3a

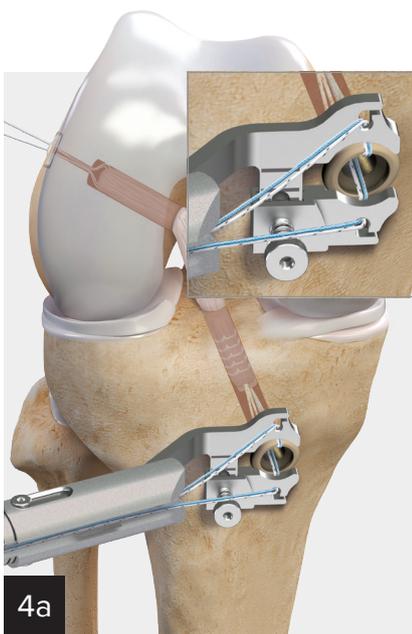


3b



3c

Capture the graft suture bundles into the endpiece **(3a)**. Insert the graft suture tails into the passing wire **(3b)**, and pull the sutures through the ratchet **(3c)**. **Note: The endpiece has been adjusted to accept a 10 mm TensionLoc collar.**

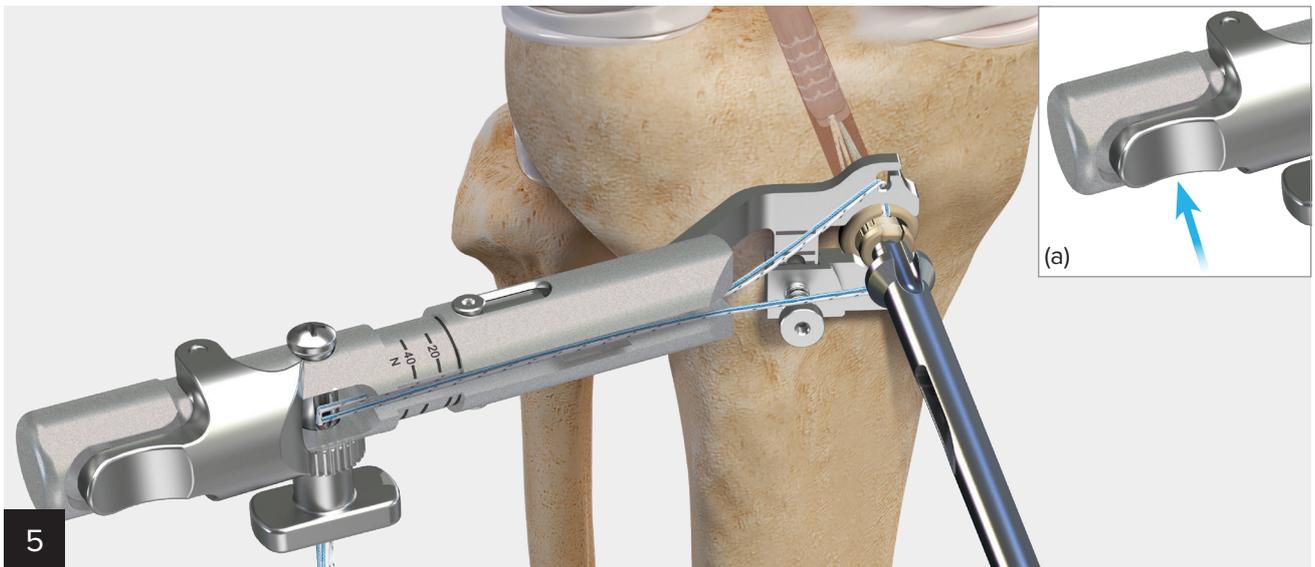


4a



4b

Tension the sutures as they exit the ratchet and slide the tensioner down the TensionLoc™ collar **(4a)**. **Note: The slot on the suture tensioner ratchet must face toward the patient so the sutures slide easily.** Ensure the sutures lie within the slot of the tensioner while turning the ratchet handle clockwise to achieve the desired tension **(4b)**.



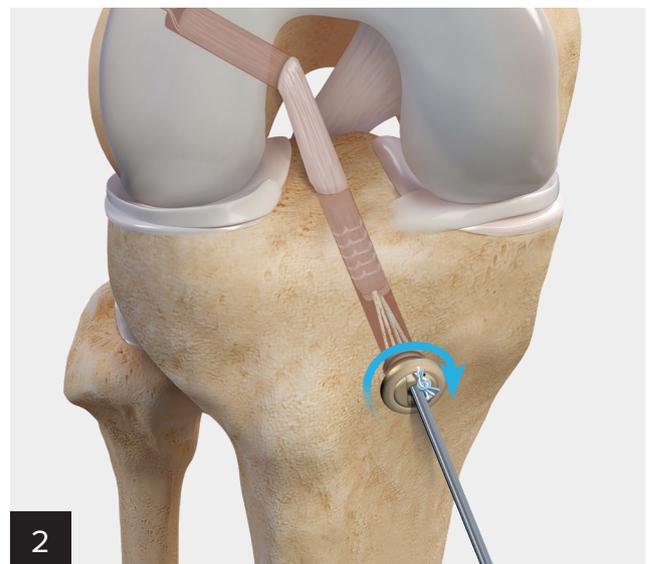
Once the desired graft tension is achieved, insert a TensionLoc fixation plug to maintain initial tension. Take note of the inch/pound (in/N) markings on the tensioner body.

To remove the tensioner from the sutures, squeeze the thumb trigger (rotate ratchet slightly clockwise to assist in releasing the sutures) and slide the tensioner off the sutures (a).

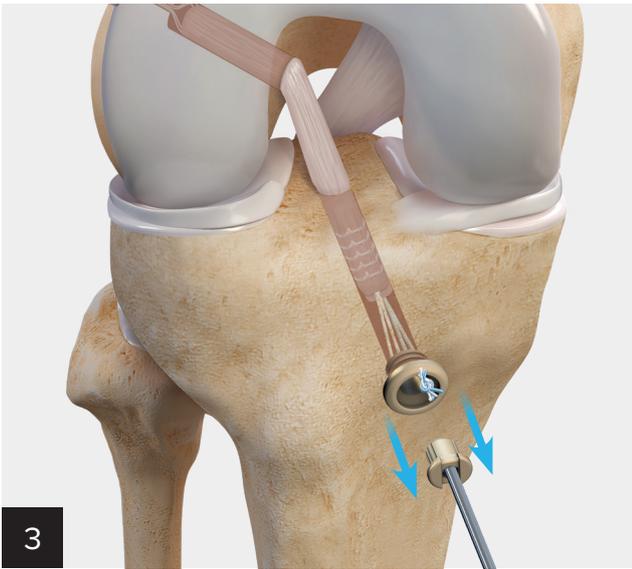
## TensionLoc™ Implant System Removal/Explanation



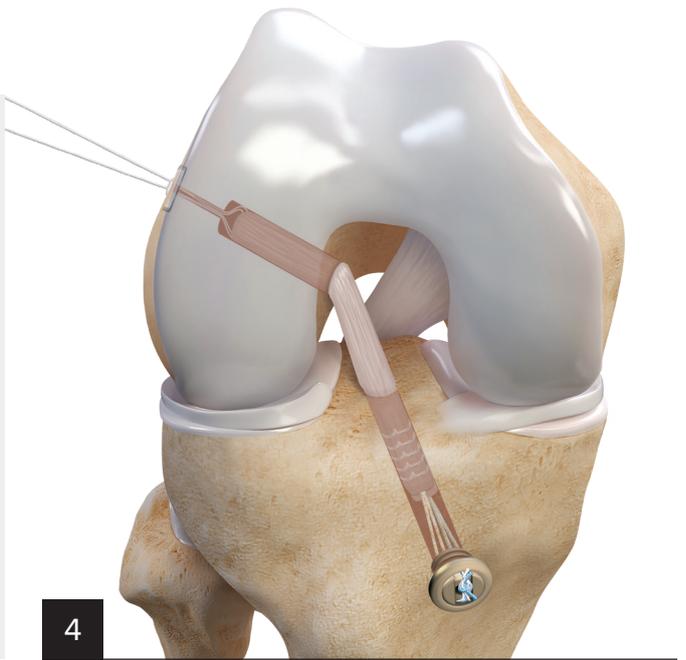
1 Cut the suture knot over the plug to access the hex drive.



2 Insert the threaded tip of the slap hammer clockwise into the hex drive until threads are not visible or the plug begins to rotate in the collar. Extract the plug by deploying the slap hammer.



The collar can now be easily removed by hand.



Final fixation.

## Ordering Information

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### Implants

Product Description	Item Number
TensionLoc™ Plug and Collar Implant, 7 mm	AR-5207
TensionLoc Plug and Collar Implant, 10 mm	AR-5210
TensionLoc Plug and Collar Implant, 12 mm	AR-5212

### Instruments

Product Description	Item Number
<b>TensionLoc Instrument Set</b>	<b>AR-5200S</b>
TensionLoc Reamer, 7 mm	AR-5207R
TensionLoc Reamer, 10 mm	AR-5210R
TensionLoc Reamer, 12 mm	AR-5212R
Impact Driver	AR-5201
TensionLoc Tensioner	AR-5202
Graft Extractor for Coring Reamer	AR-1232
Slap Hammer	AR-2964SH
Ishibashi Double-Bundle ACL Guide	AJ-0002-11

### Accessories

Product Description	Item Number
RetroConstruction™ Drill Guide Handle	AR-1510HR
Tibial ACL Marking Hook	AR-1510T
Ratchet Drill Sleeve, stepped	AR-1510FS-7
2.4 mm Guide Pin	AR-1250L-1

### Suture Options

Product Description	Item Number
ACL TightRope® Implant	AR-1588T
#2 FiberWire® Suture	AR-7246
#2 TigerWire® Suture	AR-7246T

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 Arthrex if you have questions about the availability of products in your area.

## Reference

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1. Arthrex, Inc. APT-34301a. Naples, FL; 2017.





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.

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