Hip Labral Repair Using the Knotless SutureTak® Anchor

Surgical Technique
Acetabular Labral Repair Using the Knotless Hip SutureTak® Anchor

The Knotless SutureTak anchor is a self-locking knotless implant that can be inserted through a drill guide and incrementally tensioned for precise soft-tissue control. The repair suture is passed through soft tissue and loaded into a locking mechanism inside the anchor to allow for adjustable tensioning to avoid labral eversion away from the femoral head. A simple or labral base suture configuration can be accomplished when using this anchor.

Advantages
■ Adjustable tensioning to control labrum positioning
■ 57 lb of secure, low-profile knotless suture fixation
■ Reduced risk of knot impingement or knot loosening
■ Cannulated design minimizes anchor material volume
■ Simple, reproducible percutaneous insertion techniques
■ Easily maintain the drill guide trajectory while drilling and inserting the anchor
■ Available in PEEK or biocomposite material

A Closer Look at Knotless SutureTak Anchor Self-Locking Technology

■ Just pass it, cinch it, cut it.

SutureTak Anchor Ultimate Pullout Strength

![SutureTak Anchor Ultimate Pullout Strength graph](image-url)

Load-to-Failure (lbf)

- 3 mm Knotless SutureTak Anchor: 57.3 lbf
- 3 mm SutureTak Anchor: 42.6 lbf
Patient Positioning

Acetabular labral repair is performed in the central compartment of the hip joint, requiring appropriate distraction to allow adequate space for performing the operation. Proper distraction in the supine position can be achieved using the Arthrex Hip Distraction System (HDS) to facilitate the desired lower extremity positioning.

Portal Placement

Acetabular labral repair is performed using a variety of arthroscopic portals including a combination of anterior (A), anterolateral (AL), midanterior (MA) and/or distal anterolateral accessory (DALA) portals. The flexible Trim-It custom hip cannulas can be cut to size and used for all working portals to provide enhanced instrument mobility.

- Atraumatic
- Flexible
- Variable Lengths
- Strong Proximal Threads

The 8.25 mm flexible Trim-It custom hip cannula is made of a soft polyvinyl chloride plastic designed to provide enhanced instrument mobility and minimize iatrogenic damage to the articular surfaces.

The reinforced proximal threads hold exceptionally well in soft tissue and the ability to cut the cannula from 7 cm to 15 cm working lengths minimizes OR inventory and makes it one of the most versatile cannulas available.
Simple Three-Step Cannula Insertion

1. **Measure**: Place the calibrated switching stick into the portal and measure the soft tissue distance.

2. **Cut**: Cut the cannula to the desired length.

3. **Insert**: Load the cannula onto the adjustable obturator and insert into the joint.

Circumferential Suture Configuration

1. Create a bone socket by sliding the appropriate drill guide down the cannula and placing it on the acetabular rim near the articular surface. Advance the drill bit on power through the drill guide until the collar contacts the handle. Cycle the drill bit 2 to 3 times in hard bone to clear bone debris from the prepared socket.

2. Insert the Knotless SutureTak® anchor through the drill guide and impact the handle with a mallet until the positive stop is engaged.
Remove the suture release tab to release the sutures from the handle and remove the inserter and drill guide from the joint.

Create a loop with approximately 3 cm of the white repair suture and load it into the distal jaw of the Hip Labral Scorpion™ suture passer. Pull slight tension on the suture toward the left side of the Scorpion shaft and gently squeeze the back handle to expose the nitinol Scorpion needle. The suture will load into the notch of the needle.

Slide the Hip Labral Scorpion suture passer into the joint space and place the articulating jaw underneath the labrum as close to the transitional zone of the chondrolabral junction as possible. Squeeze the front trigger to engage the tissue and compress the back of the handle to push the needle through the labral tissue.

Pull the suture passer outside the joint and squeeze the handle while pulling tension on the suture to release it from the jaws.

Alternatively, a SwiftStitch®, BirdBeak®, or Hip SutureLasso™ suture passer can be used to pass the repair suture.
Outside of the cannula, load the repair suture through the looped end of the black/white shuttling suture. Transfer the repair suture by pulling the SutureTape side of the white/black shuttle suture until light resistance is felt. Complete a series of light tugs until the repair suture passes through the knotless anchor mechanism and back out of the cannula.

Note: For suture management, prior to loading the repair suture into the loop of the TigerLink™ suture, clear the repair suture and looped end of the TigerLink suture with a retriever. This will improve suture management during shuttling of the sutures.

Pull the free end of the repair suture to the appropriate tension. Cut the suture tail once adequate tension is achieved.

Insert subsequent anchors until the repair construct is complete.
Create a bone socket by sliding the appropriate drill guide down the cannula and placing it on the acetabular rim near the articular surface. Advance the drill bit on power through the drill guide until the collar contacts the handle. Cycle the drill bit 2 to 3 times in hard bone to clear bone debris from the prepared socket.

Insert the Knotless SutureTak® anchor through the drill guide and impact the handle with a mallet until the positive stop is engaged.

Remove the suture release tab to release the sutures from the handle and remove the inserter and drill guide from the joint.
Outside the cannula, load approximately 7 mm to 10 mm of the white portion of the repair suture into the jaws of the SwiftStitch™ suture passer by pressing the black actuator. Press the black actuator down and forward to expose the nitinol jaws and then place the suture between them.

Press the black actuator down and then backward to close the jaws and capture the suture.

Place the SwiftStitch suture passer through the labrum as close to the transitional zone of the chondrolabral junction as possible and release the suture into the joint. Pierce the midsubstance of the labrum with the SwiftStitch suture passer and retrieve the suture. With the suture captured in the jaws, remove the SwiftStitch suture passer from the cannula. **Note:** To reduce the tension on the suture, push the suture passer past point before releasing it inside the joint.
Outside of the cannula, load the repair suture through the looped end of the black/white shuttling suture. Transfer the repair suture by pulling the SutureTape side of the white/black shuttle suture until light resistance is felt. Complete a series of light tugs until the repair suture passes through the knotless anchor mechanism and back out of the cannula.

Note: For suture management, prior to loading the repair suture into the loop of the TigerLink™ suture, clear the repair suture and looped end of the TigerLink suture with a retriever. This will improve suture management during shuttling of the sutures.

Pull the free end of the repair suture to the appropriate tension and cut the suture tail once adequate tension is achieved.

Final fixation: Insert subsequent anchors until the repair construct is complete.
### Ordering Information

#### Extended Length Hip Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Item Number</th>
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</thead>
<tbody>
<tr>
<td>BioComposite Knotless SutureTak® Anchor, 3 mm × 12.7 mm</td>
<td>AR-1938BCCH</td>
</tr>
<tr>
<td>PEEK Knotless Hip SutureTak Anchor, 3 mm × 12.7 mm</td>
<td>AR-1938PHS</td>
</tr>
<tr>
<td>Crown Tip Drill Guide, XL, w/ cannulated obturator</td>
<td>AR-2923DG</td>
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<tr>
<td>Fork Tip Drill Guide, XL, w/ cannulated obturator</td>
<td>AR-2923DGF</td>
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<tr>
<td>Cannulated Obturator, XL</td>
<td>AR-2923DG-1</td>
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<tr>
<td>Drill Bit for 3 mm Knotless Hip SutureTak Anchor, XL</td>
<td>AR-1250LTH</td>
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<tr>
<td>Drill Bit for 3 mm Knotless Hip SutureTak Anchor, hard bone, XL</td>
<td>AR-1938DH</td>
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<tr>
<td>Drill Bit for 3 mm Knotless Hip SutureTak Anchor, very hard bone, XL</td>
<td>AR-1938DHL</td>
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<tr>
<td>Disposable Drill Bit for 3 mm Knotless Hip SutureTak Anchor, hard bone, XL</td>
<td>AR-1938DHD</td>
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<tr>
<td>Disposable Insertion Kit for 3 mm Knotless Hip SutureTak Anchor, hard bone, XL</td>
<td>AR-1938DHS-1</td>
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<tr>
<td>Disposable Insertion Kit for 3 mm Knotless Hip SutureTak Anchor, XL</td>
<td>AR-1938DHS</td>
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#### Additional Featured Products

<table>
<thead>
<tr>
<th>Product Description</th>
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<tr>
<td>Hip Distraction System</td>
<td>AR-65295</td>
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<tr>
<td>Time-It® Custom Hip Cannula, 8.25 mm × 15 cm</td>
<td>AR-6590</td>
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<tr>
<td>Time-It Custom Hip Cannula Switching Stick, cannulated</td>
<td>AR-6590ST</td>
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<tr>
<td>Time-It Custom Hip Cannula Inserter Handle</td>
<td>AR-6590DH</td>
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<tr>
<td>Time-It Custom Hip Cannula Obturator</td>
<td>AR-6590DT</td>
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<tr>
<td>Hip Labral Scorpion® Suture Passer</td>
<td>AR-16991</td>
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<tr>
<td>Hip Labral Scorpion Needle</td>
<td>AR-16991N</td>
</tr>
<tr>
<td>SwiftStitch® Suture Passer</td>
<td>AR-4068HL</td>
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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

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.

View U.S. patent information at www.arthrex.com/corporate/virtual-patent-marking

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