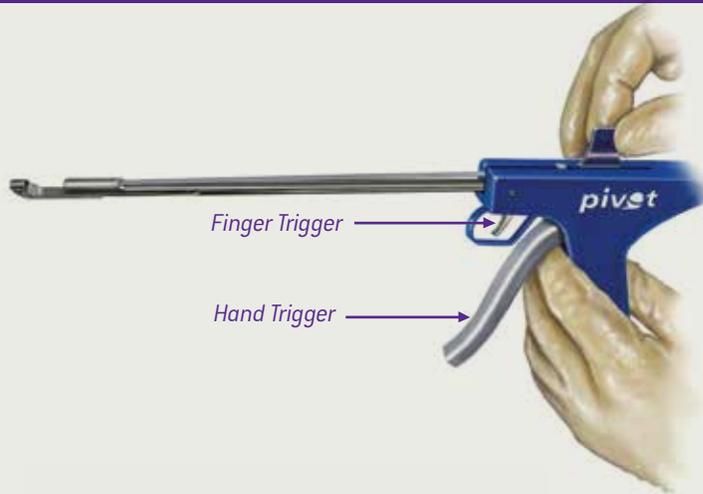


## InJector® II Capsule Restoration System

Pivot Medical is proud to introduce the InJector II Capsule Restoration System. InJector II is designed to address the limited visualization and working space challenges surgeons face today in Hip Arthroscopy. Used in tandem with the TransPort Hip Access System, InJector II is designed to allow for an expedient means to expose the peripheral hip compartment for optimal visualization, diagnosis and removal of cam pathology. InJector II is designed to allow for anatomic restoration of the capsule through a single portal approach.

# InJector II Capsule Restoration System

1



## Preparing the InJector II for use:

- Slide the Needle Cartridge tip into the Handle shaft until the plastic tab until it reaches the metal posts. Press the blue plastic tab into the locking clip on the back of the Handle and actuate the hand trigger to confirm that the Cartridge rides back and forth along the Handle shaft. (Figure 1)
- Load a #2 ZipLine High Strength Suture into the slot at the tip of the Handle, leaving approximately 1-4 inches of free limb. Pull ZipLine taught in the slot to ensure full engagement across the width of the Handle tip. (Figure 2)

2



## Technique for Capsule Flaps Retraction:

Note: A capsular rim cut has previously been prepared to expose the central compartment.

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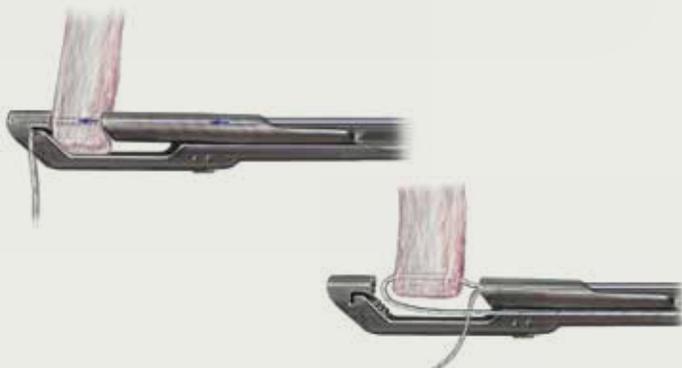


- Using a Samurai Blade through a TransPort Cannula, incise the capsule 2cm along the femoral neck perpendicular to the interportal capsulotomy in a T-cut configuration.
- Squeeze the InJector II hand trigger to close the jaws. Via the distal anterolateral accessory (DALA) portal, deliver the loaded InJector II through the TransPort Cannula. Release the hand trigger, straddle the lateral capsule flap at its apex and close the jaws by partially squeezing the hand trigger to secure the tissue. Evaluate tissue bite. If not acceptable, release trigger, reposition tissue in jaws, and partially squeeze hand trigger to secure the tissue. (Figure 3)



**TECHNIQUE PEARL:** The InJector II can be used in any portal to deliver stitches.

4

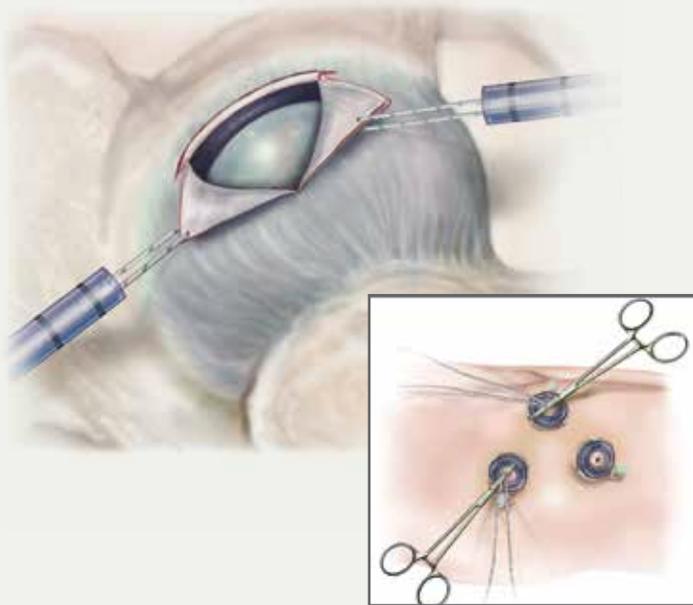


- Squeeze the hand trigger completely until it meets the Handle to “inject” the needle out of the Cartridge and through the capsule, passing the suture. A “click” can be heard and felt when the hand trigger meets with the Handle confirming terminal extension of the needle through the capsule. (Figure 4) Release the hand trigger and remove jaw from tissue. Ensure suture has released from slot in distal jaw.
- Squeeze the InJector II hand trigger to close jaws, then remove the InJector II from the TransPort Cannula.

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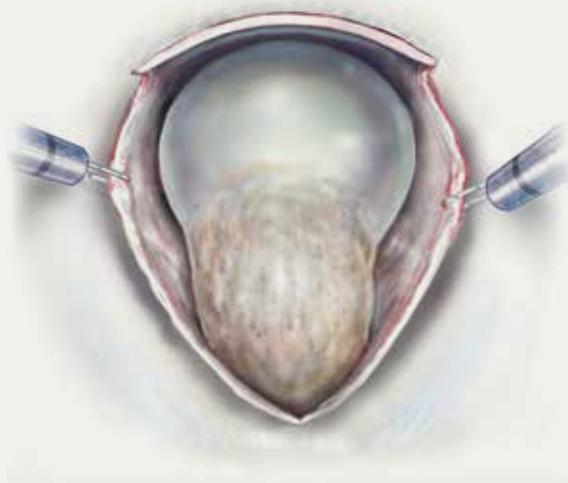


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Release the ZipLine from the Cartridge by first depressing the finger trigger (and maintaining it) and simultaneously depressing the hand trigger. (Figure 5) Use a crochet hook to retrieve the half-stitch through the anterolateral (AL) portal. Tension the capsule flap to retract it and secure the half-stitch with a hemostat against the TransPort Cannula.

**Precaution:** Closing the jaw when delivering and extracting the InJector II avoids TransPort Cannula seal damage and protects soft tissues.

- Duplicate previous steps for the medial capsule flap except:
  - Deliver a half-stitch 1cm distal to the flap apex (Figure 6) and
  - Retrieve the half-stitch out the anterior portal and secure the half-stitch outside the body with a hemostat. (Figure 6a)

**Note:** These retraction half stitches will later serve as closure stitches for the most proximal aspect of the T-cut.

**TECHNIQUE PEARL:** To assist in suture management, use different colored ZipLine sutures for the capsule retraction stitches (available in green/white and black/white)

- Extend the T-cut using a Samurai Blade and readjust the tension on the capsule flaps to fully expose the peripheral compartment and the cam pathology. (Figure 7)

### Technique for T-Capsule Restoration:

Note: Once the central compartment work is complete, the peripheral compartment is accessed. The arthroscope is placed in the anterior portal and the traction is released. The hip is flexed roughly 30 degrees and the interval between the Gluteus Minimus and Iliocapsularis is identified. The Samurai Blade is used to create the T-capsulotomy via the distal anterolateral accessory (DALA) portal. The peripheral compartment work may then begin.

- Once the peripheral compartment work is complete, the capsular closure may begin with delivering a half-stitch through the DALA portal at the base of the T-cut as previously described.

# InJector II Capsule Restoration System

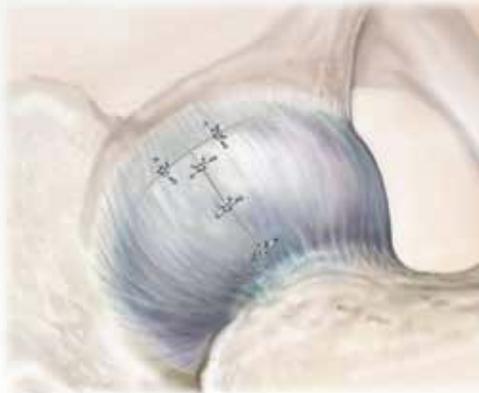
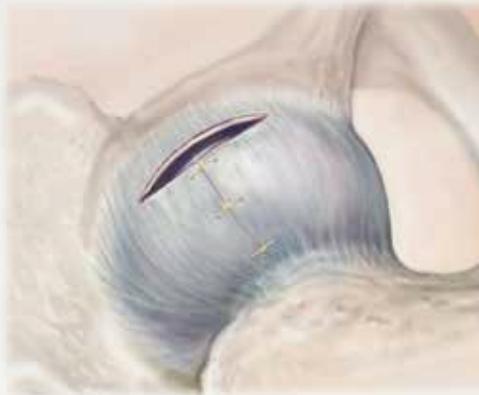
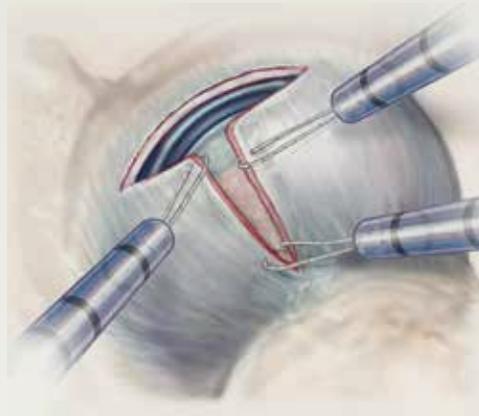
## Technique for T-Capsule Restoration ( cont.):

- Using the ZipLine thread running from the inferior aspect of the capsule, reapply it to the InJector II and deliver it through the adjacent capsule flap to complete a simple stitch. *(Figure 8)*
- Release the retraction half-stitches and deliver knots to close the base of the T-cut. Repeat the suture passing and knot tying procedures until the T-cut is closed. *(Figure 9)*

## Technique for Interportal Capsule Restoration:

Note: Previously an interportal capsulotomy, approximately 5-8 mm from the acetabular labrum connecting the anterolateral and anterior portals to expose the central compartment, has been prepared. The length of the interportal capsulotomy may vary depending on the pathology, but may range between 2 - 6 cm [20 - 60 mm].

- From the DALA portal deliver a half-stitch through the proximal aspect of the Iliofemoral ligament (IFL) adherent to the acetabulum as previously described and retrieve the ZipLine through the TransPort Cannula. Using the retrieved ZipLine suture, reapply it to the InJector II, and deliver it through the distal portion of the IFL. The suture can be tied with standard arthroscopic knot tying techniques. This step is repeated until the entire interportal portion of the capsulotomy is closed. *(Figure 10)*



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A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

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