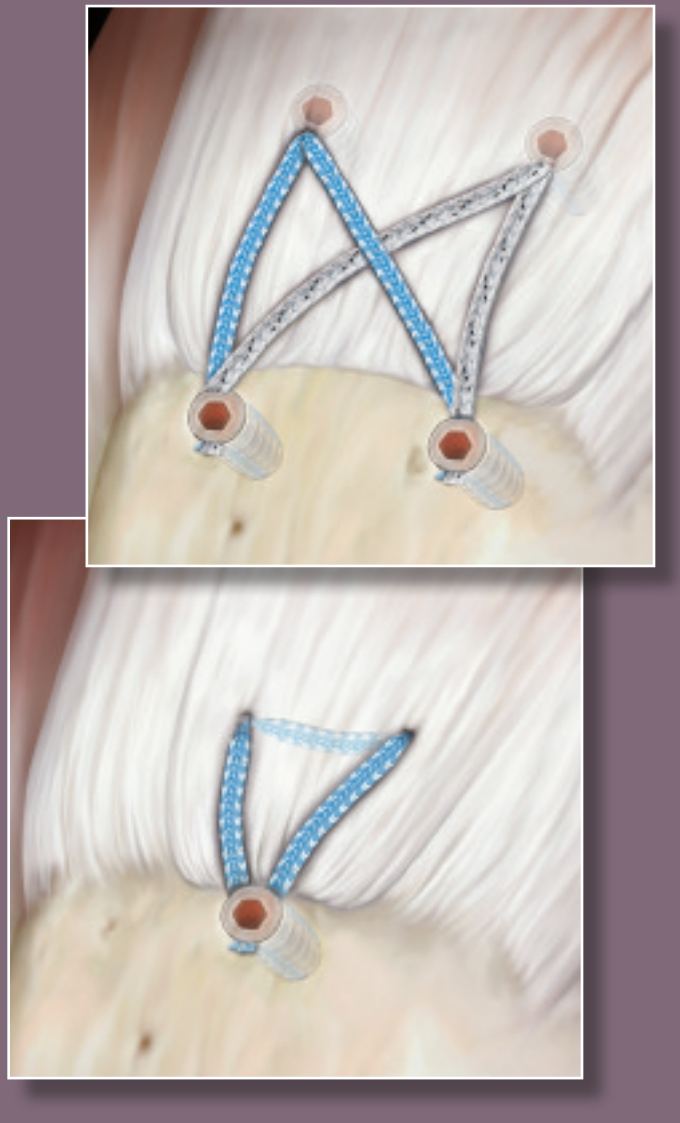
Arthrex®

SpeedBridge™ and SpeedFix™ Knotless Rotator Cuff Repair Using the SwiveLock® C Anchor and FiberTape® Suture

Surgical Technique



Knotless Rotator Cuff Repair

Knotless SwiveLock® Anchors and FiberTape® Provide our Strongest and Lowest Profile Constructs

SpeedFix™ | Knotless Single Row Repair

- Small nonretracted tears
- Simplified suture management
- Pass a FiberTape® inverted mattress stitch in one step using the SCORPION-multifire Suture Passer

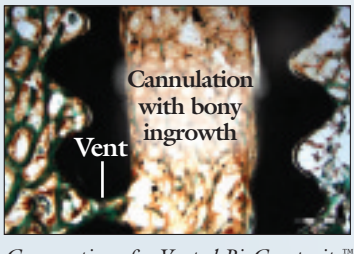
SpeedBridge™ | Knotless Double Row Footprint Reconstruction

- Medium to large tears
- Transosseous equivalent
- Maximizes contact between tendon and bone
- Knotless medial row minimizes potential for crepitus
- Protects healing zone from the synovial environment
- Requires only two suture passing steps

*ArthroFlex™ | SpeedBridge Patch Augmented Repair

- Revisions or weak tissue reinforcement
- SpeedBridge augmented with ArthroFlex decellularized dermis patch

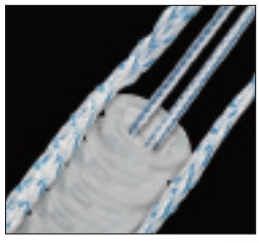
LifeNet Health®
Saving Lives. Restoring Health. Giving Hope.



Cross section of a Vented BioComposite™ SwiveLock® eight weeks after implantation in a canine model showing bony ingrowth in the vents and center cannulation. Data on file.

#2 FiberWire Tip Retention Suture

Thumb Pad



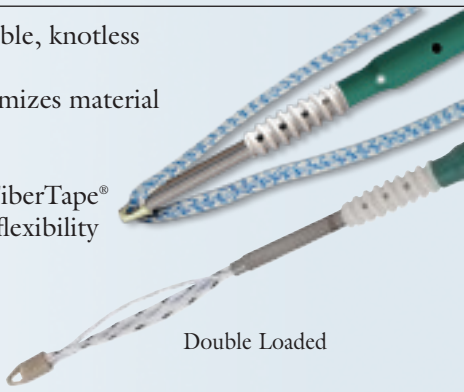
SwiveLock preloaded with #2 FiberWire Tip Retention Suture provides an opportunity to augment the repair with a knot tying option

Fully Threaded and Vented Anchor Body in 4.75 and 5.5 mm Diameters

PEEK Eyelet

SwiveLock® C Anchor

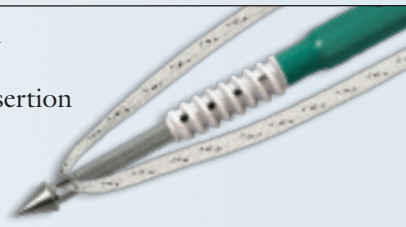
- The only fully threaded, bioabsorbable, knotless anchor on the market
- Cannulated and vented design minimizes material and may allow bony ingrowth
- Our maximum fixation strength
- Combines with many variations of FiberTape® and FiberWire® Suture for extreme flexibility
- BioComposite™, PEEK, PLLA and titanium material options



Double Loaded

SwiveLock SP Anchor

- Self-punching design eliminates the need for a bone socket preparation step
- Facilitates repair visualization prior to insertion



FiberTape® Suture

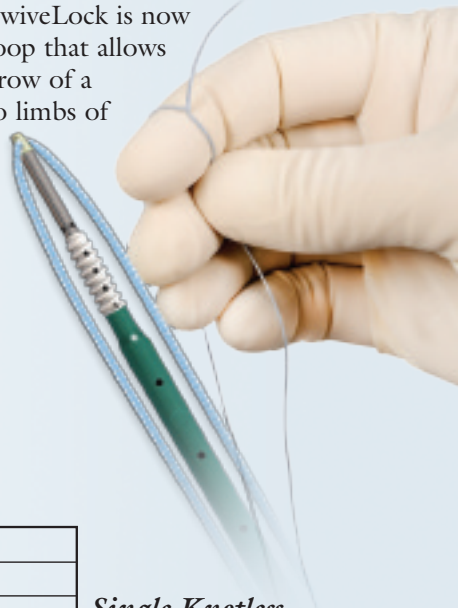
- 2 mm wide FiberTape or TigerTape™ options provide broad compression and tissue cut-through resistance
- #2 FiberWire tails can be passed with a Scorpion™ Suture Passer

2 mm Wide Tape Overbraid

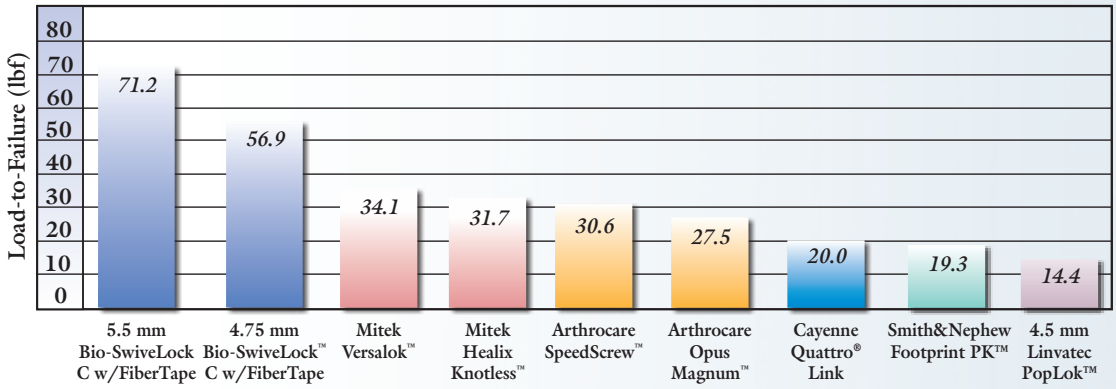
#2 FiberWire Core

BioComposite Vented SwiveLock with FiberTape Loop

The 4.75 mm BioComposite Vented SwiveLock is now available with a preloaded FiberTape loop that allows easy FiberTape passage for the medial row of a SpeedBridge™ Implant System. The two limbs of the FiberTape are joined into a single tail that can be easily passed with a Scorpion™ Suture Passer, eliminating the need for more complex suture shuttling techniques.



The science behind the technology...

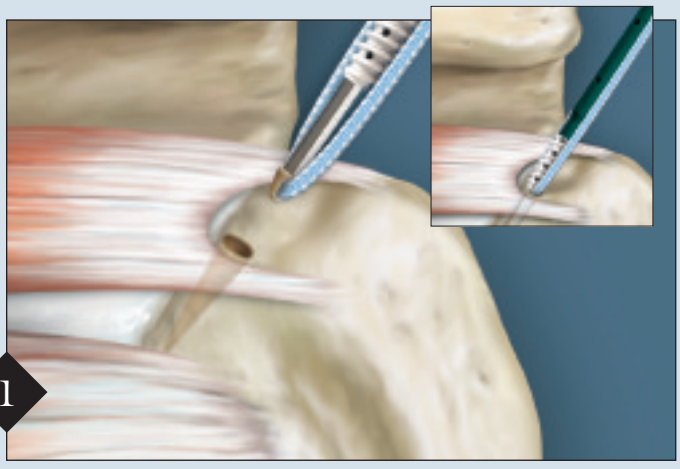


Single Knotless Anchor Pull-Out Strength

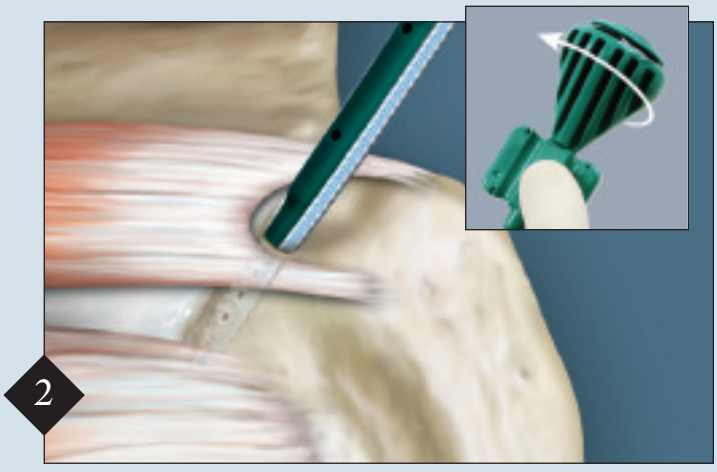
Data on file - straight axial pull-out in laminated foam block (10 pcf cancellous core with a 2 mm thick 20 pcf cortical shell)

SpeedBridge™ Repair

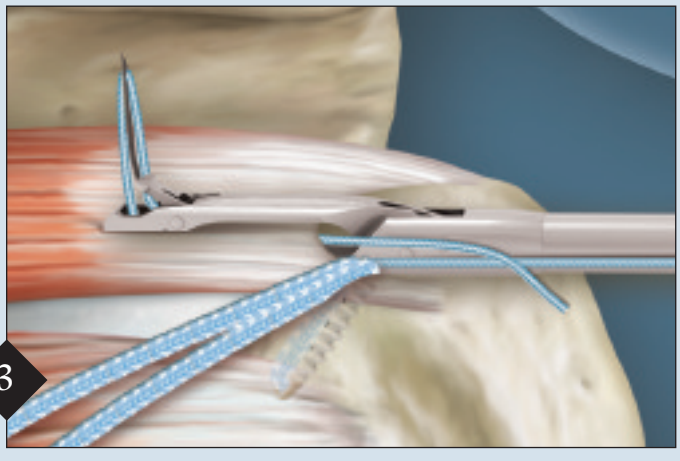
The fully threaded SwiveLock® C anchor can be combined with FiberTape® suture to create a quick and secure SutureBridge construct with no knots and only two suture passing steps. The result is a low profile, transosseous equivalent "suturebridge" that enhances footprint compression to maximize contact between tendon and bone.



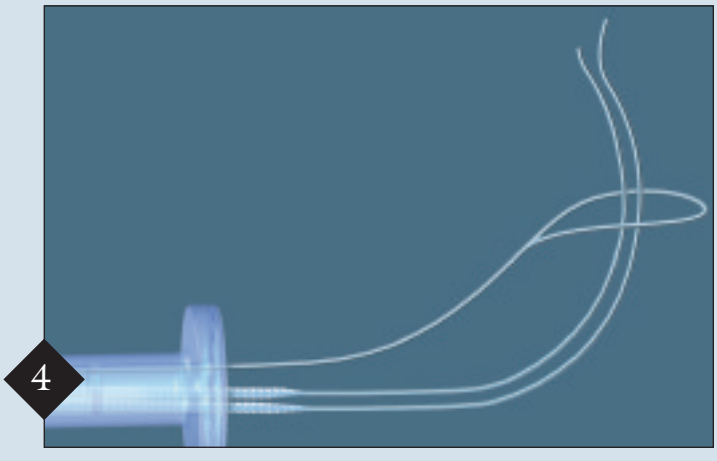
Preload a FiberTape into the eyelet of a BioComposite™ SwiveLock C for use as a medial row anchor. Prepare a bone socket using a punch. Insert the BioComposite SwiveLock C into the prepared medial bone socket until the anchor body makes contact with bone.



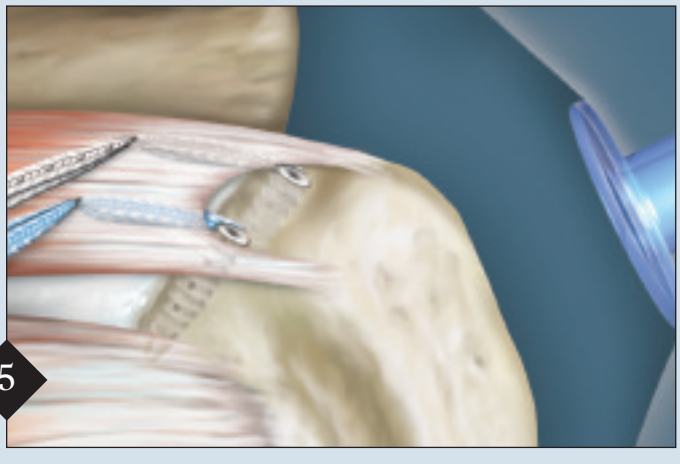
Hold the thumb pad steady and rotate the driver handle in a clockwise direction until the anchor body is flush with the bone. Unwind the #2 FiberWire® tip retention suture that holds the PEEK tip in place during anchor insertion. This suture may be incorporated into the repair or discarded. Remove the driver.



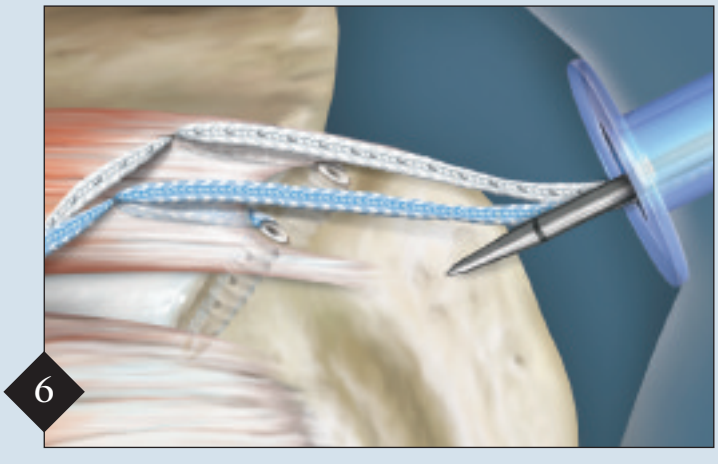
Pass the tail of a FiberLink™ suture, for use as a shuttle, through the rotator cuff with a FastPass Scorpion™. Move the FiberLink tail to the anterior portal.



Retrieve both FiberTape tails, one at a time, from the medial row anchor, through the lateral portal using a FiberTape Retriever. Load both tails of the FiberTape through the FiberLink loop. Pull on the FiberLink tail, through the anterior portal, to shuttle the FiberTapes through a single hole in the rotator cuff.



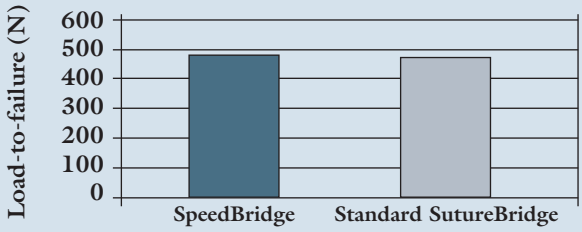
Repeat steps 1-5 for the posteromedial anchor, using a white/ black TigerTape™ for easy suture management.

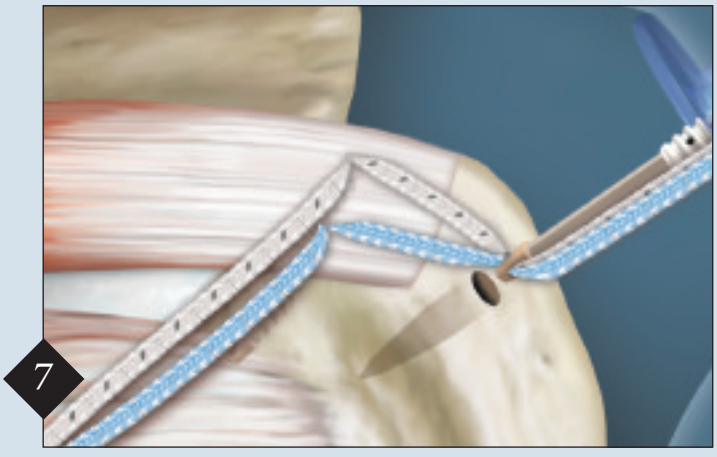


Retrieve one FiberTape tail from each medial anchor and preload them through the SwiveLock C eyelet. Prepare a bone socket using a punch. Anchor position is normally 5-10 mm lateral to the edge of the tuberosity.

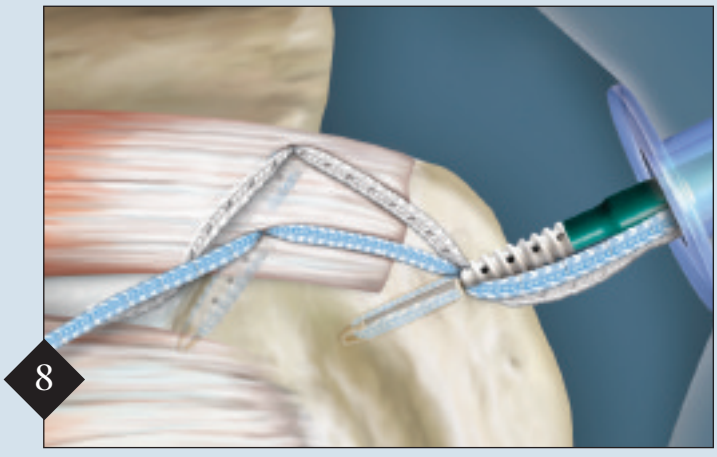
The science behind the technology ...

Cadaveric testing shows that the SpeedBridge™ repair is equivalent to the standard SutureBridge™ repair system in both strength and gap formation under cyclic loading. *Six matched pairs were cycled between 10 and 100N five hundred times and pulled to failure. The strength of both constructs was only limited by tendon quality. No anchors or sutures failed. Data on file.*

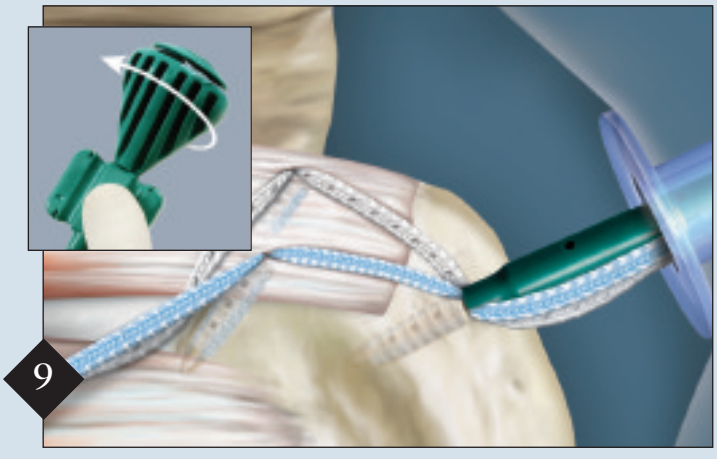




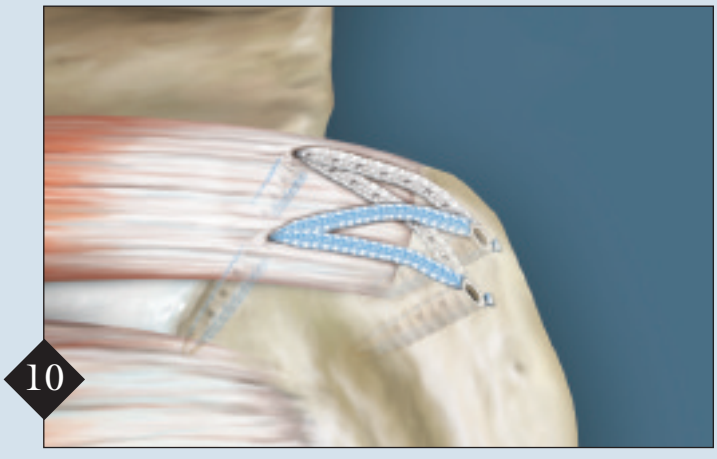
Bring the eyelet of the implant to the edge of the bone socket and remove slack from each FiberTape® limb individually. Apply tension to the FiberTapes so that the tissue is reduced and compressed against the bone.



Completely advance the driver into the bone socket beyond the first laser line, until the anchor body contacts bone. Evaluate tissue tension. If it is determined that the tension is not adequate, the driver can be backed out and tension readjusted. (Do not attempt to apply tension with the eyelet in the bone socket.)



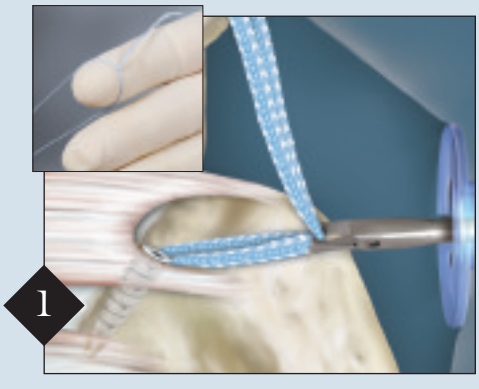
Make sure the tip of the anchor body is in contact with bone. Hold the thumb pad steady and rotate the driver in a clockwise direction to insert the anchor body until it is flush with the bone.



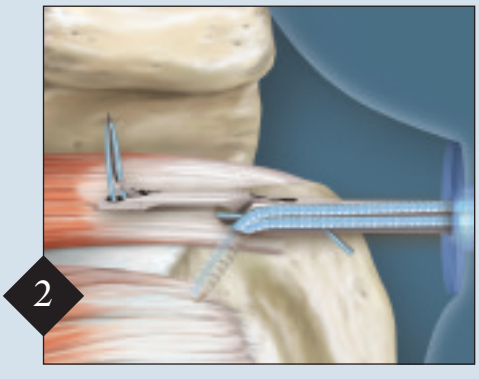
Cut the FiberTape tails with a FiberTape cutter. Repeat steps 7-9 for the second lateral anchor.

Alternate Medial Row Option – SwiveLock® anchor with Preloaded FiberTape Loop

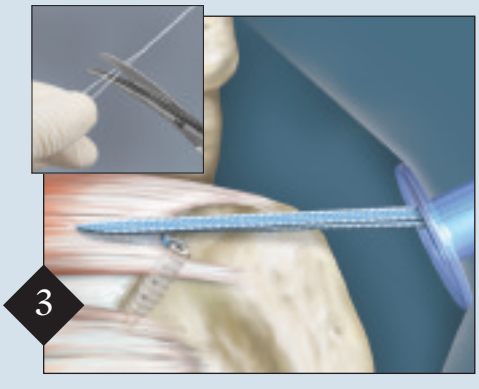
The two limbs of the FiberTape are joined into a single tail that can easily be passed with a Scorpion Suture Passer.



Insert medial anchor normally and retrieve **both** FiberTape limbs at the same time with a FiberTape Retriever.



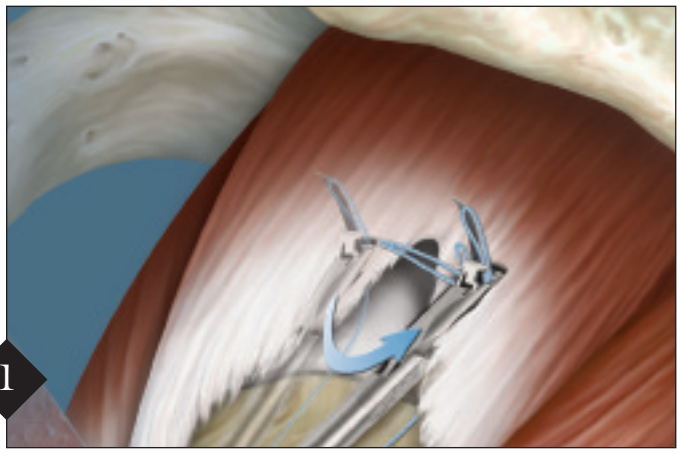
Load the single tail directly onto a FastPass Scorpion™ and pass through the cuff without the need for a FiberLink suture shuttling step.



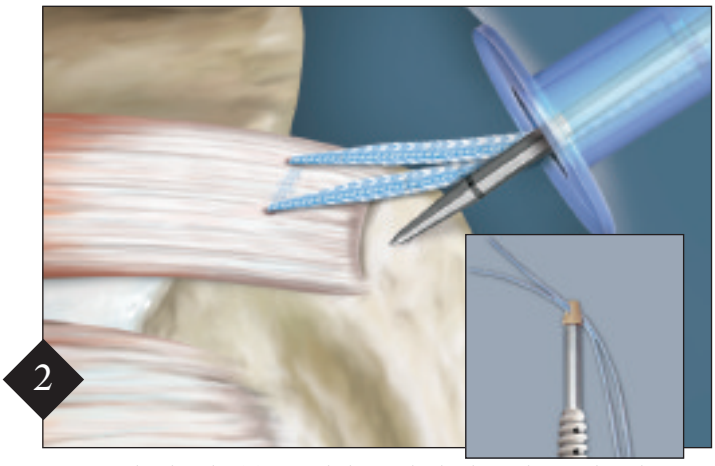
The tail smoothly leads both FiberTape limbs through the tissue. The spliced tail is cut off, allowing each FiberTape limb to be separated for normal lateral fixation.

SpeedFix™ Repair

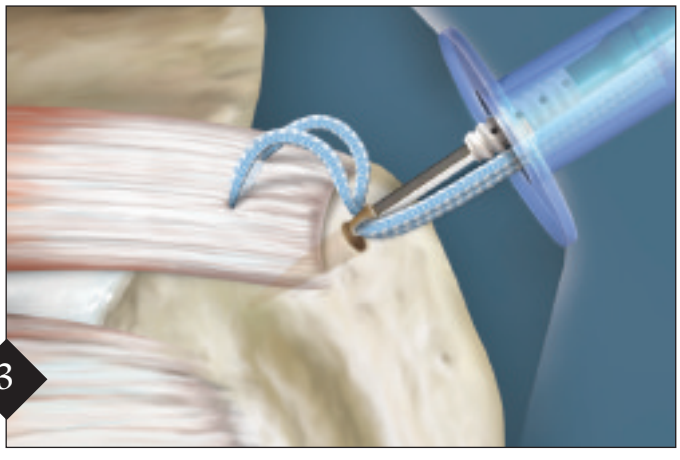
Quick and secure single-row fixation can be obtained with the SpeedFix. The SpeedFix takes advantage of the PassPort Button Cannula™ and the MultiFire FastPass Scorpion™ Suture Passer. The MultiFire FastPass Scorpion Suture Passer is used to pass an inverted mattress stitch in one step. The flexible PassPort Cannulas help maximize visibility and maneuverability inside and outside of the arthroscopic work space. The double-dam one-piece molded design has low profile flanges that seat flush to the skin and soft tissue. These flanges create a stable portal that allows instruments to be inserted and removed, without the concern of cannula loss.



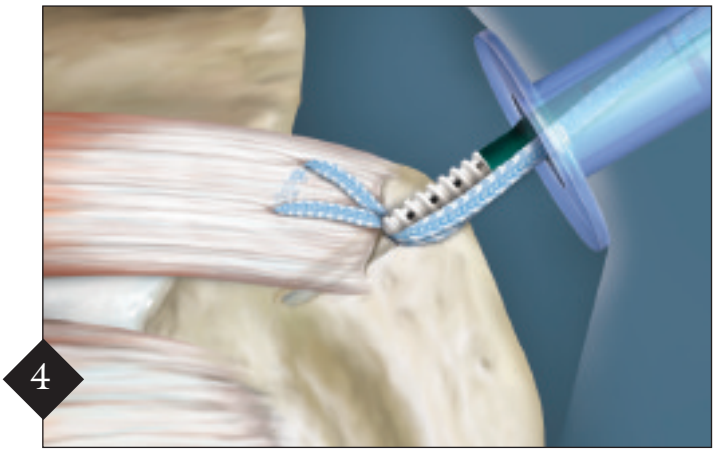
Load both tails of a FiberTape® suture into the MultiFire FastPass Scorpion and pass an inverted mattress stitch in one step.



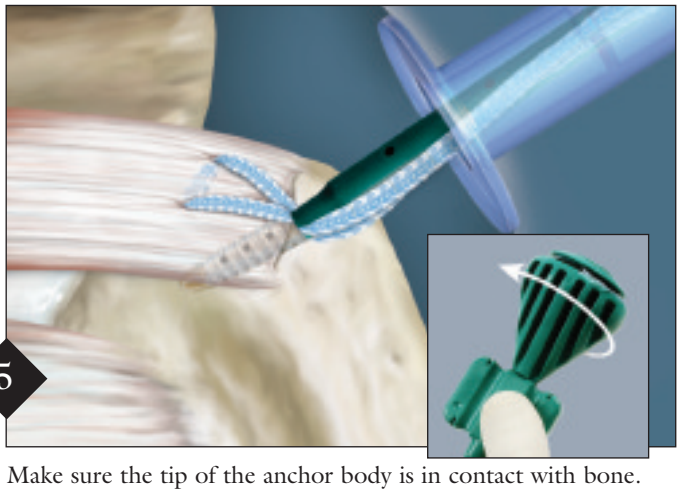
Retrieve both FiberTape tail through the lateral portal and preload them through the SwiveLock® C eyelet. Prepare a bone socket using a punch.



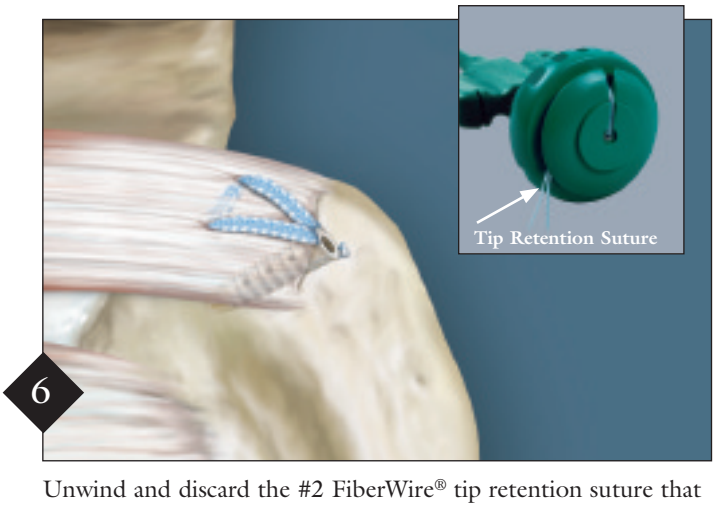
Bring the tip of the Bio-SwiveLock C eyelet to the edge of the bone socket. Leave some slack in the FiberTapes to allow for easy insertion.



Insert the Bio-SwiveLock C into the prepared bone socket until the anchor body makes contact with bone. Adjust tension if necessary.



Make sure the tip of the anchor body is in contact with bone. Hold the thumb pad steady and rotate the driver handle in a clockwise direction until the anchor body is flush with the bone.

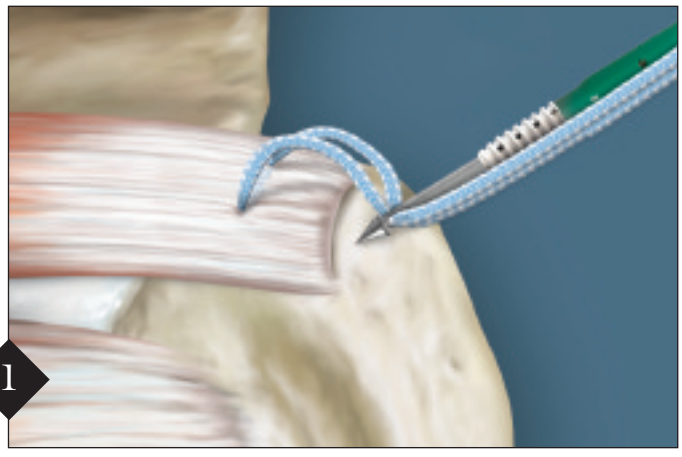


Unwind and discard the #2 FiberWire® tip retention suture that holds the PEEK tip in place during anchor insertion. Remove the driver. Cut the FiberTape tails with a FiberTape cutter.

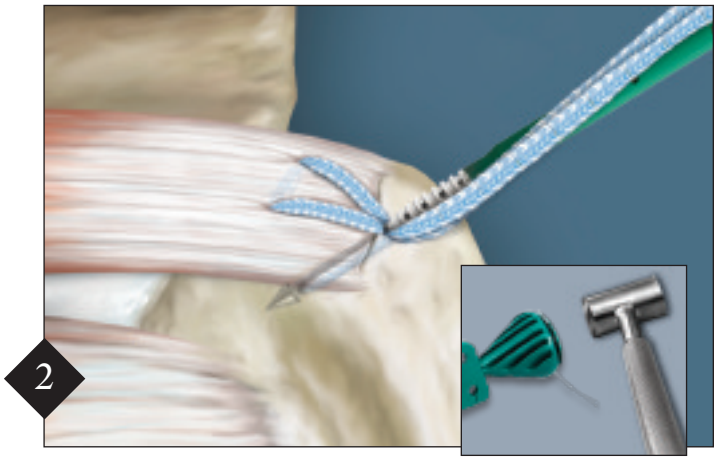
SwiveLock™ SP

The SwiveLock SP combines a titanium tip with the anchor body to eliminate the need for prepunching a bone socket. This self-punching design can help save valuable O.R. time while increasing the precision of the final construct. The SwiveLock SP can be combined with FiberTape® suture to complete a SpeedFix™ or SpeedBridge knotless rotator cuff repair.

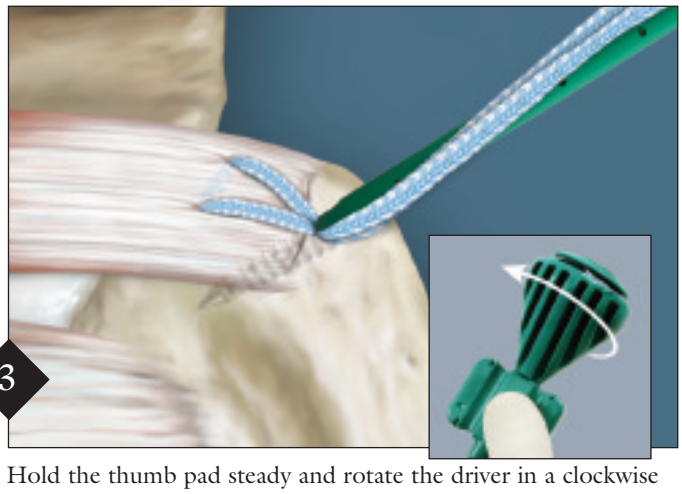
SpeedFix™ w/SwiveLock® SP



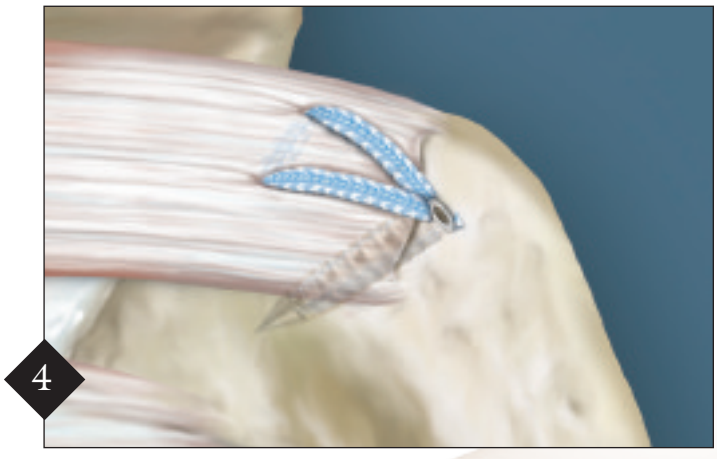
Pass a FiberTape in an inverted mattress configuration. Load the FiberTape tails through the SwiveLock SP eyelet and locate the best anchor position. Leave some slack in the FiberTapes.



Mallet directly on the driver handle to simultaneously create the bone socket and partially insert the SwiveLock SP until the anchor body contacts bone. Tension may be adjusted if necessary.



Hold the thumb pad steady and rotate the driver in a clockwise direction to insert the anchor body until it is flush with the bone.

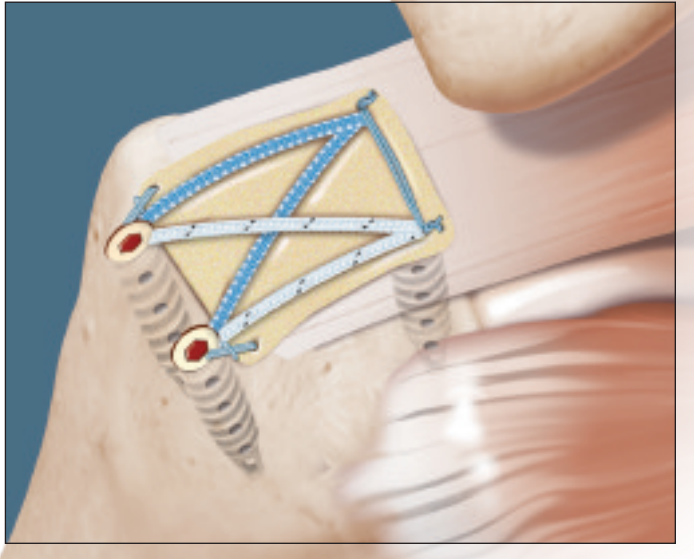


Unwind and discard the #2 FiberWire® tip retention suture that holds the titanium tip in place during anchor insertion. Remove the driver. Cut the FiberTape tails with a FiberTape cutter.

SpeedBridge™ RCR with ArthroFlex® Patch Augmentation

The SpeedBridge rotator cuff repair can easily be combined with the ArthroFlex Decellularized Dermis Patch to provide complete footprint restoration on challenging repairs. ArthroFlex can be shuttled down the medial row FiberTapes into position to complete the repair.

- MATRACELL™ decellularization process
- Sterile graft compared to other aseptically processed dermis materials
- Superior suture retention when compared to other augmentation patches
- After a rapid preparation process, the graft provides ideal handling characteristics
- Multiple sizes and affordable



Ordering Information

Implants/Disposables:

BioComposite™ SwiveLock® C, 4.75 mm x 19.1 mm, closed eyelet	AR-2324BCC
BioComposite SwiveLock C, 5.5 mm x 19.1 mm, closed eyelet	AR-2323BCC
BioComposite SwiveLock SP, 4.75 mm x 24.5 mm, self-punching	AR-2324BCM
BioComposite SwiveLock SP, 5.5 mm x 24.5 mm, self-punching	AR-2323BCM
BioComposite SwiveLock C w/blue FiberTape® Loop	AR-2324BCCT
BioComposite SwiveLock C w/white/black FiberTape Loop	AR-2324BCCTT
BioComposite SwiveLock C 4.75 mm x 22 mm, double-loaded with two #2 TigerWire® CL (1 white/blue, 1 white/black)	AR-2324BCC-2
(PEEK, PLLA and titanium anchor options also available)	
FiberTape, 2 mm, 7 inch (blue) each end tapered to #2 FiberWire®, 30 inches	AR-7237-7
TigerTape™, 2 mm, 7 inch (white/black) each end tapered to #2 TigerWire, 30 inches	AR-7237-7T
FiberTape, Collagen Coated, 2 mm, 7 inch (blue)	AR-7237-7B
FiberLink™, #2 FiberWire (blue) w/closed loop	AR-7235
MultiFire Scorpion Needle	AR-13995N
PassPort Cannula™, 8 mm I.D. x 20 mm	AR-6592-08-20
PassPort Cannula, 8 mm I.D. x 30 mm	AR-6592-08-30
PassPort Cannula, 8 mm I.D. x 40 mm	AR-6592-08-40
PassPort Cannula, 8 mm I.D. x 50 mm	AR-6592-08-50
PassPort Hemostat *(used for PassPort insertion)*	AR-6592
PassPort Measuring Device *(used for determining proper PassPort length)*	AR-6592M
ArthroFlex Decellularized Dermis with MATRACELL, 1.26 - 1.75 mm thickness, 35 x 35 mm	AFLEX100
ArthroFlex Decellularized Dermis with MATRACELL, 1.26 - 1.75 mm thickness, 40 x 70 mm	AFLEX101
ArthroFlex Decellularized Dermis with MATRACELL, 1.76 - 2.25 mm thickness, 35 x 35 mm	AFLEX200

SpeedBridge™ Implant System:

The SpeedBridge™ Implant System is a single convenience package that contains all implants and FiberTapes needed for a standard four-anchor SpeedBridge construct.

SpeedBridge Implant System w/BioComposite SwiveLock C	AR-2600SBS-4
SpeedBridge Implant System w/BioComposite SwiveLock SP	AR-2600SBS-5

Instruments:

Punch, for 5.5 mm Corkscrew FT and 4.75 mm and 5.5 mm SwiveLock	AR-1927PB
Disposable Punch, for 5.5 mm Corkscrew FT and 4.75 mm and 5.5 mm SwiveLock	AR-1927PBS
MultiFire FastPass Scorpion™ Suture Passer	AR-13997MF
FastPass Scorpion SL	AR-13999MF
FiberTape Cutter	AR-13250
FiberTape Retriever w/SR Handle	AR-13974SR
FiberTape Penetrator, w/SR Handle, Straight Shaft, Self-Ratcheting	AR-2167ST-3
FiberTape Penetrator, 15° w/SR Handle, Up Curved	AR-2167-3

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.

Arthrex®

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*ArthroFlex® is owned by Lifenet Health

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