

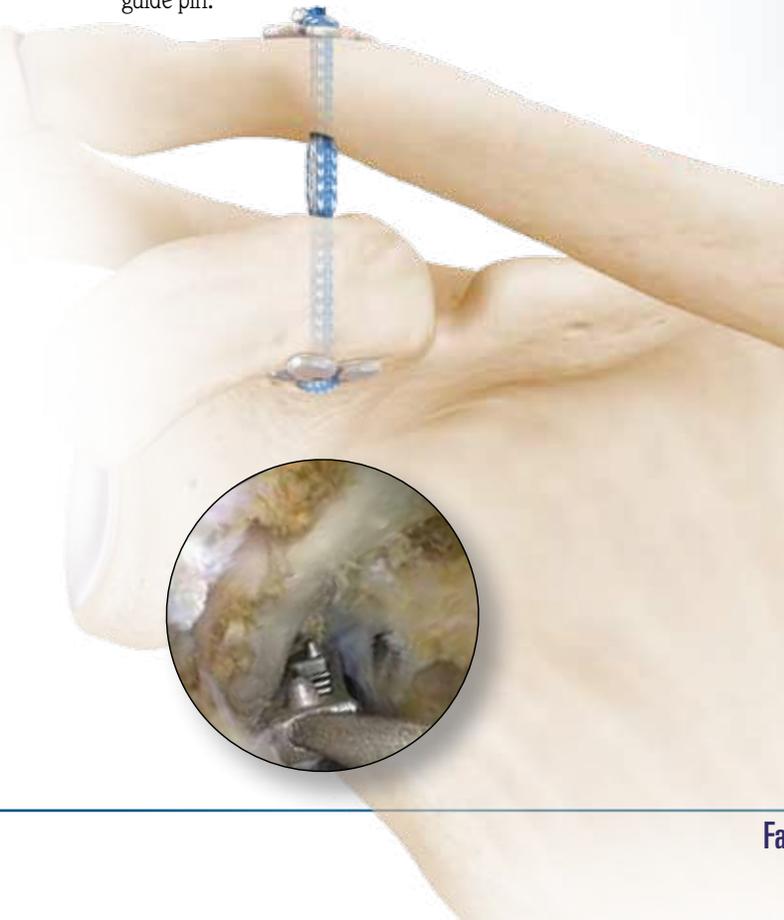
# SCOPE THIS OUT

A Technical Pearls Newsletter for Arthroscopists.....



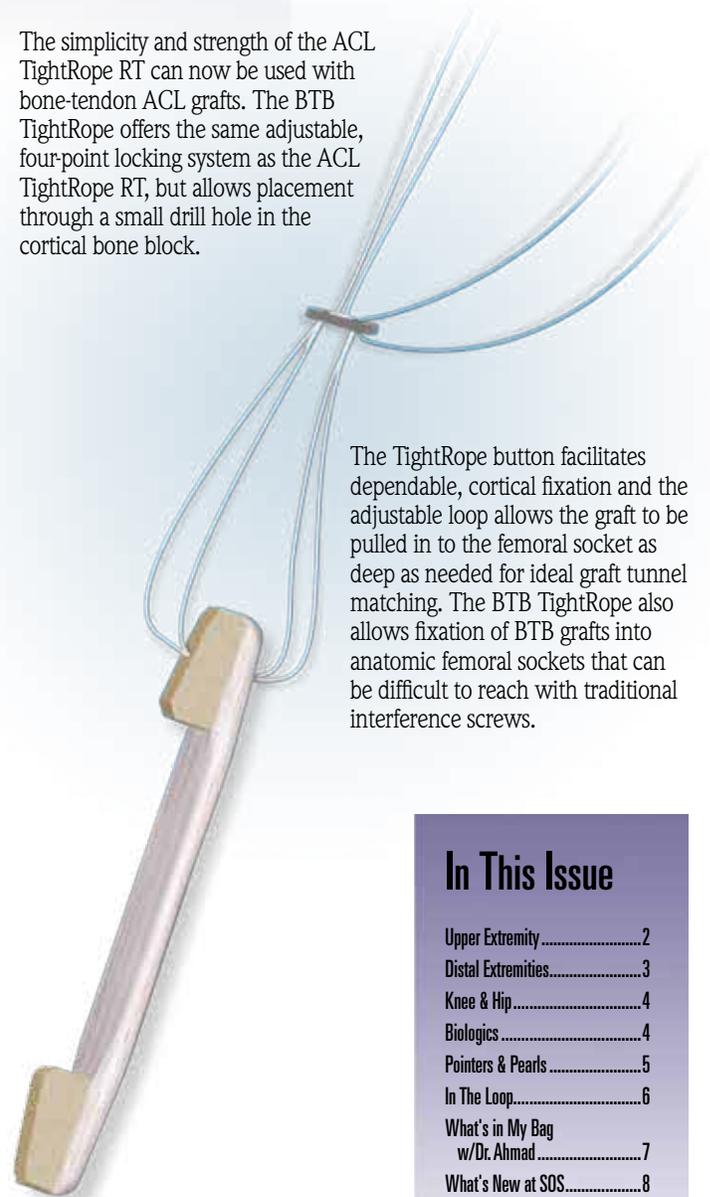
### Dog Bone Button for AC Joint Repair

The Dog Bone Button is a precontoured button that allows the use of multiple FiberTapes for AC joint reduction, providing a construct that is twice as strong as existing AC joint repair devices. Since the buttons are attached to the FiberTapes independently, only suture material is passed through the clavicle and coracoid tunnels allowing the repair to be completed using 3 mm tunnels. Tunnel drilling is made easier with new AC guide arms and a new 3 mm Cannulated Reamer. The guide arms feature angled tips and two posts to help seat the guide firmly against the base of the coracoid and the 3 mm Cannulated Reamer allows for one-step tunnel drilling, eliminating the need to drill over a guide pin.



### BTB TightRope

The simplicity and strength of the ACL TightRope RT can now be used with bone-tendon ACL grafts. The BTB TightRope offers the same adjustable, four-point locking system as the ACL TightRope RT, but allows placement through a small drill hole in the cortical bone block.



The TightRope button facilitates dependable, cortical fixation and the adjustable loop allows the graft to be pulled in to the femoral socket as deep as needed for ideal graft tunnel matching. The BTB TightRope also allows fixation of BTB grafts into anatomic femoral sockets that can be difficult to reach with traditional interference screws.

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# PRODUCT INFO

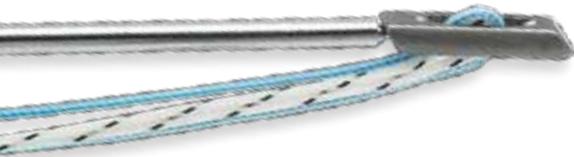
## Upper Extremity

### Pec Button



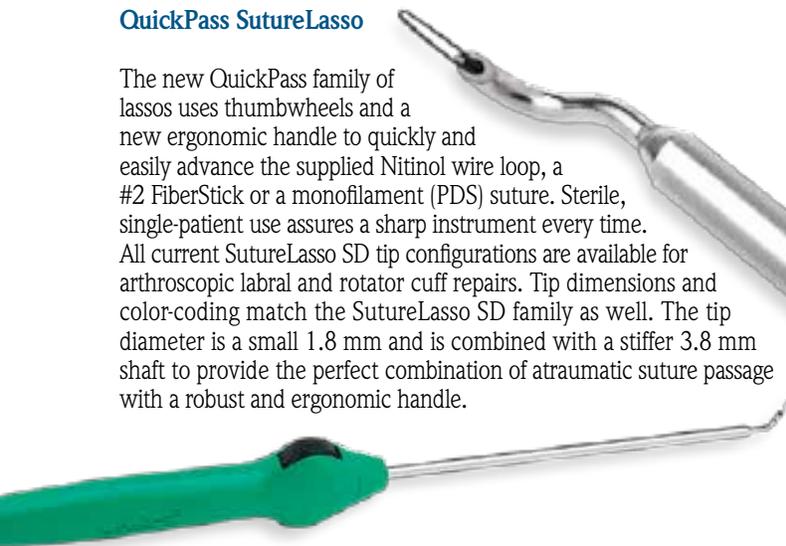
The Pec Button is a 2.6 mm x 10.9 mm titanium button used for fixation of soft tissue-to-bone intended as fixation posts, a distribution bridge, and for distributing suture tension over areas of ligament or tendon repair. Each end of the button has an angled face to promote a toggle effect when the button contacts the opposite cortex, enabling the Pec Button to be ideally suited for the repair of ruptures of the pectoralis major tendon back-to-bone. A unicortical pilot hole is formed with a 3.2 mm drill bit and after attaching two #2 FiberWire sutures, the button is inserted in a unicortical fashion using the inserter. A general written surgical technique can be found in *Techniques in Shoulder & Elbow Surgery*, Vol. 11, Number 9, September, 2010 entitled "A New Technique for Repairing Pectoralis Major Muscle Injuries with Cortical Button Fixation".

The Pec Button is also available in an Implant Delivery Repair Kit. The kit contains four Pec Buttons w/FiberWire and needles, a Button Inserter, and a 3.2 mm drill pin.



### QuickPass SutureLasso

The new QuickPass family of lassos uses thumbwheels and a new ergonomic handle to quickly and easily advance the supplied Nitinol wire loop, a #2 FiberStick or a monofilament (PDS) suture. Sterile, single-patient use assures a sharp instrument every time. All current SutureLasso SD tip configurations are available for arthroscopic labral and rotator cuff repairs. Tip dimensions and color-coding match the SutureLasso SD family as well. The tip diameter is a small 1.8 mm and is combined with a stiffer 3.8 mm shaft to provide the perfect combination of atraumatic suture passage with a robust and ergonomic handle.



### TRIMANO Support Arm

TRIMANO acts as the surgical team's "third hand" by securely and safely holding the patient's arm in any desired position during arthroscopic or open shoulder surgery performed in the beach chair position. The compact and lightweight device is easily attached to any OR table Clark Rail and is ready for immediate use. No additional power or air connections are required. The patient's arm can be moved in any direction by simply pressing the TRIMANO's handle. Releasing the handle locks it into the desired position.



The convenient TRIMANO Beach Chair Kit includes a sterile drape for the support arm, an ergonomically designed foam arm holder and Coban. The kit allows for quick and easy patient preparation, while gently protecting the operative arm.

### Beach Chair Positioner System

The Lift-assist Beach Chair Positioner System allows unobstructed posterior access and makes repositioning the patient quick and easy. The free-sliding head positioner feature protects the patient's neck when raising and lowering the table and the fold-away shoulder wings remove completely for unobstructed shear-free access to the operative shoulder. The lift-assist design enables nearly effortless positioning as the piston supports most of the patient's weight.

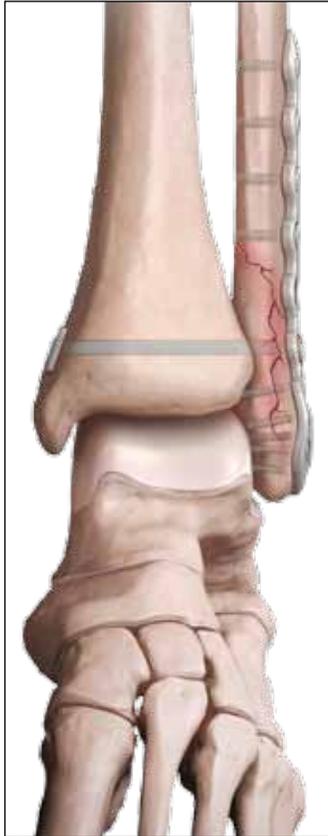


### Shoulder Instrument Case and Set

The Shoulder Repair Set is a comprehensive selection of specialty instruments to facilitate arthroscopic shoulder repairs. The Set has been updated to include additional instruments required for the latest shoulder techniques like the SpeedBridge, FastPass Scorpion and PassPort Button Cannula. The case has been changed to a two-tray (vs. three-tray) system to make it more efficient and to make room for the additional instruments. The set contains the most popular instruments as determined by leading upper extremity surgeons.



# Distal Extremities

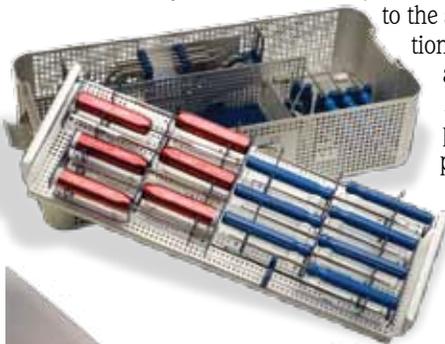


## Knotless TightRope System for Syndesmosis Repair

The syndesmosis TightRope has been implanted over 60,000 times worldwide and its popularity has resulted in the development of the new Knotless TightRope. The Knotless TightRope has the same indications as the regular TightRope, but can be placed without tying knots and eliminates the possibility of knot irritation. Arthrex's knotless technology allows for a construct that is as strong as the knotted version of the TightRope in all biomechanical testing and 3.5 times stronger than the competition. This strength should give the surgeon complete confidence when treating syndesmosis ruptures. The Knotless TightRope comes in the same type of convenience pack with everything needed during syndesmosis repairs.

## Small Joint Arthroscopy Instrument Set

This set of instruments was designed for the foot and ankle surgeon to eliminate the need to borrow instruments from larger joint sets and offer a comprehensive solution for small joint arthroscopy. This complete set of instruments includes: ring-handled graspers and punches, as well as curettes, osteotomes, elevators and Chondro Picks for the daily work of the small joint arthroscopist. In addition to the standard instrumentation, this unique set is available with the optional Ankle GPS System for pinpoint pin and screw placement. Specialty instruments for OCD carving and elevation are also available.



Ankle GPS System



## Mini Scorpion Dx . . . Grasp, Pass, and Retrieve

The new Mini Scorpion Dx has been designed for those distal extremity applications requiring a miniaturized version of the Arthrex sports medicine Scorpion. The more ergonomic and minimized instrument offers versatile suturing options for use in

tight, hard to reach places.

The FastPass technology provides a suture capturing mechanism to automatically retrieve 0 FiberWire after passing through tissue. This instrument works well under direct visualization as well as "blind" passes through the plantar plate from a dorsal approach, where access and visualization is often limited.

The Mini Scorpion Dx will release as part of CPR System (Comprehensive Plantar Plate Repair System), from a dorsal approach, this fall/winter.



## Ankle Arthroscopy Distractor

A new innovative design removes the distractor mechanism away from the surgeon, and allows ease of tensioning with the ergonomic tensioning wheel.



### Ankle Arthroscopy Distractor Features:

- Clark rail adapter allows ease of attachment to bed rails even over multiple drapes.
- Offset tensioning wheel allows easy control of distraction, while remaining out of the surgeon's working area.
- Available with tensiometer to dial-in precise distraction for every case.
- Simple set-up and fully sterilizable with case.
- Clips onto the Ankle Distraction Strap.

## PRODUCT INFO

# Knee and Hip

### iBalance Unicondylar Knee

The iBalance Unicondylar Knee allows for a reproducible, balanced result in patients with isolated medial or lateral compartment degenerative changes.

The surgical technique features fully instrumented bone preparation, with all femoral bone cuts made off of spacer blocks. This allows for minimal and predictable bony resection, while maintaining optimal tensioning of the knee in both the flexion and extension spaces.

The iBalance Unicondylar Knee features an open articulation, which helps to minimize the shear forces across the tibial component. The components can be placed in up to 10° of varus/valgus angulation without the loss of implant congruency.



#### **iBalance Unicondylar Knee Implant Features:**

##### • Femoral Components

- Available in six sizes, left and right
- Follows natural curvature of the femur decreasing medial/lateral overhang potential
- Thin, tapered profile minimizes patellar abutment
- Single sagittal radius from 0°-138°

##### • Tibial Components

- Available in six sizes, left and right
- Two “mushroom” pegs and an anchor keel for solid fixation
- Peripheral polyethylene locking mechanism

## PRODUCT INFO

# Biologics

### ArthroFlex Bio-Implant for Soft Tissue Repair

ArthroFlex is a decellularized dermal allograft matrix for use in areas where supplemental support and covering is needed. Processed with a patented and validated process called MATRACELL™, it renders the ArthroFlex allograft dermis acellular, without compromising the biomechanical and biochemical properties. This matrix allows the matrix to retain its growth factors, native collagen scaffold, and elastin, which is required for healing.



#### **ArthroFlex Benefits:**

- Room temperature storage
- Prehydrated
- Strength and handling characteristics
- Sterile
- Biocompatible
- Currently comes in three sizes

### ACP Double Syringe System

The ACP Double Syringe System has been redesigned to improve the overall ease of use of the product. Based on customer feedback, changes were made to the gasket of the outer syringe to reduce friction during blood draw and plasma transfer. The draw handle was also redesigned to be larger and colored, making it easier to identify and hold while drawing the patient's blood. The inner syringe has also been modified to fit within the new system and is larger in diameter, making it easier to hold. If you have any questions about any of these new features please do not hesitate to consult your local Arthrex representative.



### Fresh Osteochondral Allografts

Arthrex has a long standing partnership with leading tissue banks to provide fresh osteochondral allografts (OCA) for use in joint restoration procedures. Fresh OCA's allow the surgeon to transplant mature, hyaline cartilage with viable chondrocytes and subchondral bone in a single procedure. Arthrex has introduced a redesigned Allograft OATS Workstation to provide more flexibility in preparing the OCA in the operating room. New 22.5 mm and 27.5 mm instrument trays allow for more sizing options. Contact your local Arthrex Representative for more information on ordering fresh osteochondral allografts and the Allograft OATS Workstation.

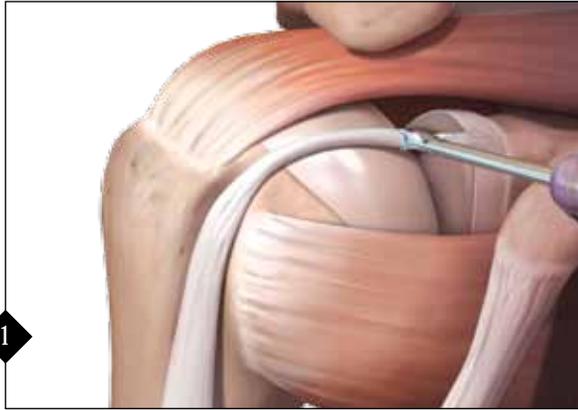


#### **OCA Benefits:**

- Hyaline cartilage
- Viable chondrocytes
- Multiple graft options
- No donor site morbidity
- Strict donor acceptance and release criteria

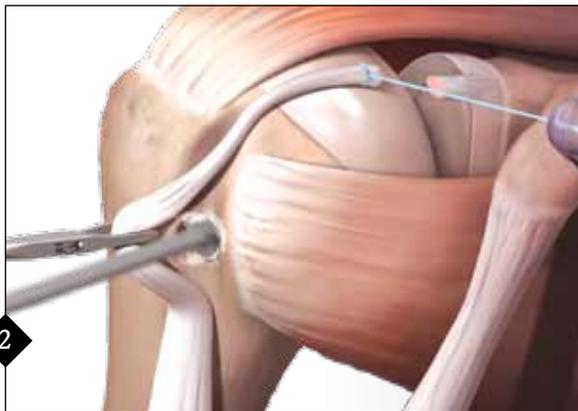


# Pointers & Pearls



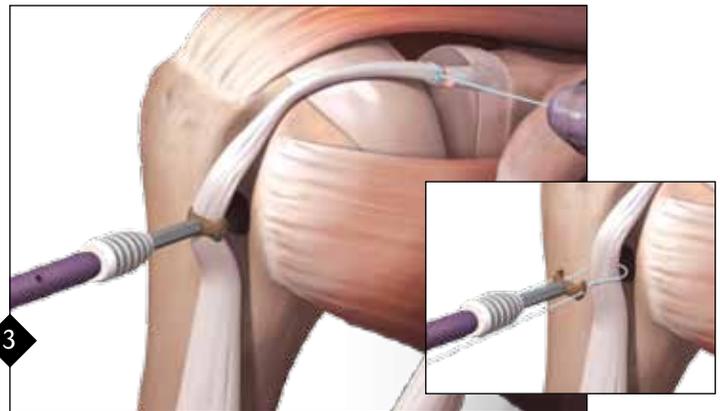
1

Place a tag suture through the biceps and cut the tendon.



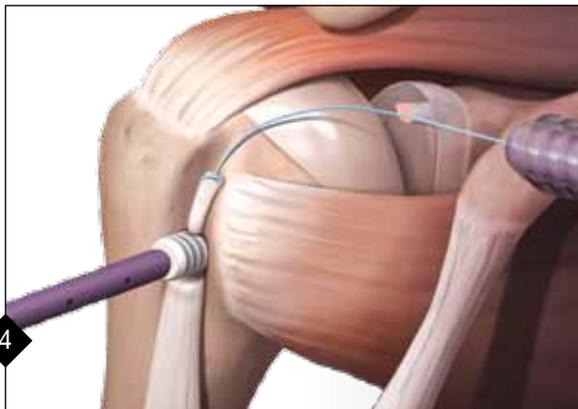
2

Drill a tunnel in the bicipital groove using a Pilot Headed Reamer.



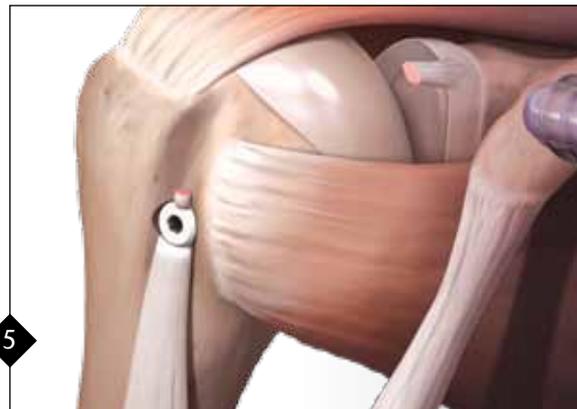
3

Use the forked tip of the SwiveLock to grasp the tendon and push it to the bottom of the tunnel.



4

Insert the screw until it is flush with the bone.



5

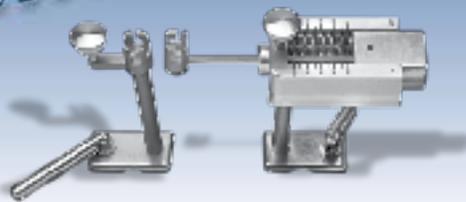
Remove the stay suture and trim excess tendon proximally to complete the repair.

## New Forked SwiveLock for Arthroscopic Biceps Tenodesis

The forked tip SwiveLock Tenodesis is designed for true arthroscopic proximal biceps tenodesis. The PEEK fork grabs the tendon and pushes it to the bottom of the socket without the need to externalize and whipstitch the biceps tendon. Alternatively, a suture can be passed around the biceps with a FastPass Scorpion and loaded through the eyelets in the fork to lasso the tendon. Fixation is obtained by screwing the preloaded Tenodesis Screw into the socket, which can be created using the Pilot Headed Reamers. The reamers feature a guide tip that eliminates the need to ream over a 2.4 mm drill pin. The forked tip SwiveLock Tenodesis is available in both BioComposite and PEEK in 7, 8 and 9 mm x 15 mm screw sizes.



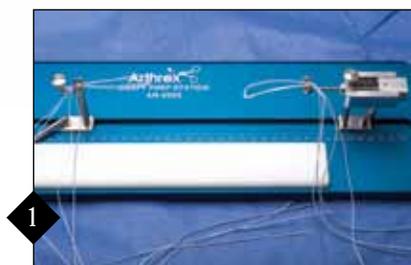
# IN THE Loop



## Simplified GraftLink Preparation with FiberLoop Technique and . . . New Graft Prep Attachments

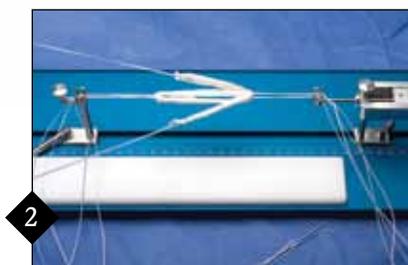
The GraftLink technique facilitates all-inside ACL reconstruction with a single semi-T graft, which may reduce morbidity and loss of hamstring strength. The construct allows for easy graft passing and adjustable cortical fixation into femoral and tibial sockets. GraftLink preparation can be simplified by placing FiberLoop whipstitches into the tails of the graft and wrapping the graft around the TightRope loops. This allows tensioning during stitching, one-person graft prep, and more symmetric graft size and tapering of the ends. The new GraftLink Graft Prep attachments further simplify this technique by firmly holding TightRope implants in place, locking whipstitch sutures and allowing simultaneous tensioning with a built-in tensiometer.

The overall semi-T graft length is measured. Note: a length of 27 cm will yield a four-stranded GraftLink of approximately 7 cm. Stitch approximately 2 cm of each graft end with one #2 FiberLoop and one #2 TigerLoop. Alternatively, both graft ends may be stitched together with a single #2 FiberLoop after passing the graft through ACL TightRopes.



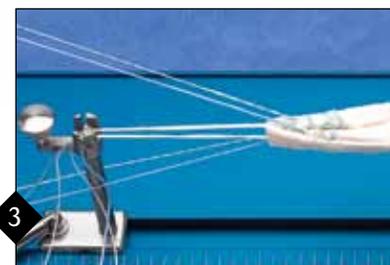
1

The GraftLink Graft Prep Attachments are placed on the base and the ACL TightRope RT implants are loaded into the attachments. The distance between TightRope loop ends is measured. This distance should equal 10 mm less than the desired final graft length.



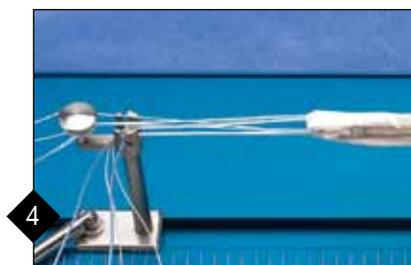
2

Load the graft through the implants by folding it symmetrically over the loops.



3

Pass one tail of each whipstitch over the graft loop and the other under the graft loop. This will ensure that the tails of the graft are tucked inside the loop during tensioning, which will facilitate tapering of ends and uniform thickness of the graft.



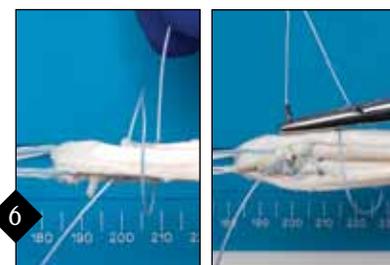
4

Once the graft is folded appropriately and desired length is obtained, wrap the whipstitch sutures around the post to hold the construct in place.



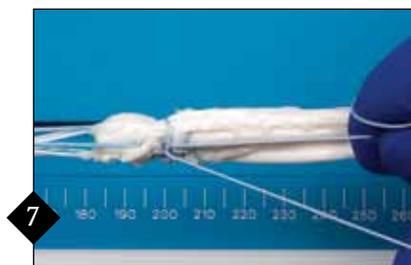
5

The first stitch may now be placed. Using a "buried knot" technique, start from the inside of the graft and place the needle through the first two graft limbs.



6

Wrap the suture around the graft then place the needle through the second set of graft limbs from outside/in.



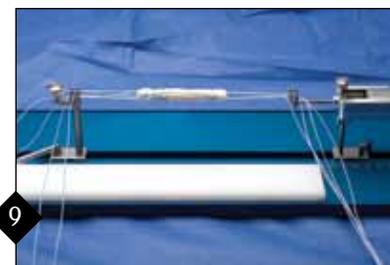
7

Tension the suture and tie a knot to secure the stitch.



8

This may be repeated on either end of the graft for a total of two stitches on each end.



9

The GraftLink Graft Prep Attachments may now be used for tensioning by simply pulling on one side until the desired tension is obtained, as read on the Tensiometer. The FiberLoop whipstitch sutures may be cut off or used as supplemental fixation.

# What's in My Bag?



**Featuring: Christopher Ahmad, M.D.**  
Head Team Physician for the New York Yankees  
Director of Pediatric and Adolescent Sports Medicine and Associate Professor,  
Department of Orthopaedic Surgery at Columbia University

## New Concepts in Shoulder Instability Repair

### **Q. What is the newest trend in labral repair for your practice?**

A. The latest trends I have employed in my practice relate to creating the most secure stabilization, optimizing the repair healing potential, and reducing complications related to hardware, such as prominent knots. This is accomplished by using both an increased number of suture anchors and also smaller size anchors, such as 2.4 mm BioComposite SutureTaks and 2.9 mm BioComposite PushLocks. I prefer percutaneous approaches for exact and ideal anchor placement and suture passing.

### **Q. You published a landmark anatomical study on the size of the labral footprint\* and suggest that there may be a place for double row labral repair. Could you please summarize?**

A. It became evident during arthroscopy that the capsulolabral complex had a broad insertion site on the glenoid neck and that current repair strategies attempt to spot-weld the capsulolabral complex onto the glenoid face. It has been popularized to fully mobilize the anterior capsulolabral complex as part of preparation for shifting the tissue. Surgeons have advocated repair of the labrum 1 to 2 mm onto the glenoid articular surface in an effort to restore labral anatomy and improve concavity compression. However, fixation of labrum onto articular cartilage has less healing capacity than fixation to the bone surface of the anterior glenoid.

Our research demonstrated that the normal insertion approaches 10 mm in length and that a double row repair better restores the insertion site area. When double row SutureBridge capsulolabral repair was compared to traditional single row repair in cadavers, the double row repair recreated 85.9% of the insertional footprint, compared to 42.3% for the single row repair. Furthermore, the double row repair did not create a medialized repair, while still taking advantage of broad insertion site. In summary, a SutureBridge capsulolabral repair technique recreates native anatomy with compression at the insertion site – to improve healing and avoid knot tying.



Single row repair, axial view  
(arrow indicates uncovered  
capsulolabral footprint)



SutureBridge double row repair

### **Q. What type of patient would be a candidate for a SutureBridge double row labral repair in your practice?**

A. The most appropriate patients would be those at higher risk of failure with a standard labral repair and also not candidates for bone augmentation procedures. These include patients with severe capsulolabral injury or patients that require full release and mobilization of the capsulolabral complex, such as ALPSA lesions. Furthermore, other challenging conditions that require optimal healing, such as young contact athletes, mild bone deficiency on the anterior glenoid, and Hill-Sachs lesions may benefit from an anatomically improved repair.

### **Q. How do you accomplish the double row labral repair arthroscopically?**

A. A percutaneous approach or an anterior/inferior cannula is used to place a BioComposite SutureTak onto the inferomedial aspect of the glenolabral insertional footprint. A SutureLasso SD is introduced percutaneously to shuttle sutures through the labrum and capsule. The next SutureTak is placed 3-5 mm superior to the initial anchor and sutures passed. Repeat as necessary for a total of three-four anchors. Next, use an equal amount of 2.9 mm PushLock Anchors on the glenoid face to create SutureBridges and reduce the labral tissue to the glenoid rim.

### **Q. This technique also has application for bony Bankart repair?**

A. Thin bony Bankart lesions are extremely well suited for a double row type repair even in the setting of slight comminution. The labrum with bone fragment is prepared by mobilizing the tissue and abrading the bone. The labral tear often extends inferior to the bone fragment. This area can be repaired with a standard single suture anchor repair technique. SutureBridges are created with SutureTaks medial on the glenoid neck and PushLocks placed on the glenoid face. This construct compresses the bone for optimal healing.

\* Evaluation of Glenoid Capsulolabral Complex Insertional Anatomy and Restoration with Single and Double Row Capsulolabral Repairs – Ahmad, et al, Journal of Shoulder and Elbow Surgery - 2009.

