FastPass Scorpion SL (Side-Loading)

The Scorpion SL is the newest member of the Scorpion family and features one-step suture-loading that locks the suture in place by pulling the suture into the curved slot on the bottom jaw. The “shovel nose” tip design prevents the inadvertent snagging of tissue or other suture strands, while allowing the bottom jaw to slide under small tears when cuff tissue is closely approximated to the bone surface.

- Low profile, solid front jaw helps avoid previously passed sutures and tissue
- Easy, one-step suture loading
- Fits down a 6 mm cannula
- Jaw design grasps up to 16 mm of thick tissue

Build in significant stability, strength and protection to your minimally invasive primary MCL repairs

The MCL InternalBrace Ligament Augmentation Repair consists of a 2 mm wide FiberTape that spans the distance between two Knotless SwiveLock anchors in order to provide a protective reinforcement of primary MCL repair that exceeds the strength of the native ligament. FiberTape has been proven safe and effective with up to 10 years experience in more than 800,000 tendons or ligament-bridging repairs.

MCL InternalBrace Kit (AR-5511-CP) includes:
- BioComposite SwiveLock, 4.75 mm x 15 mm, qty. 2
- Shoehorn Cannula
- Cannulated Drill Bit, 4.5 mm
- Guide Pins, 2.4 mm x 8”, qty. 2
- SwiveLock Punch/Tap, 4.75 mm, disposable
- FiberTape, 17”
- #2 FiberWire, qty. 2

In This Issue
- Upper Extremity: 2
- Distal Extremities: 3
- Knee & Hip: 3-4
- Imaging & Reaction: 4
- In The Loop: 5
- What’s in My Bag: 6
- Research Corner: 7
- What’s New at SOS: 8
Proximal Tenodesis Kit for Unicortical Biceps Tenodesis

The Proximal Tenodesis Kit is an excellent option for subpec biceps tenodesis, particularly for unicortical button fixation since the smaller implant size allows for easier deployment in the intramedullary canal.

The 2.6 mm x 8.5 mm Proximal Tenodesis Button has the same angled edges as the Pec Button (AR-2266), which helps promote a toggle effect when the button contacts the opposite cortex, but it is 2.5 mm shorter to help flip in the canal of smaller patients. The sutures can be loaded into the button to perform the tension slide technique, which makes drawing the biceps tendon onto the humerus easy and reliable.

http://www.arthrex.com/resources/video/ImtNJ8ivEEaUwFAwYaXOg/unicortical-proximal-subpec-tenodesis

TripleDam Cannula*, 8.25 mm x 7 cm

The new TripleDam Cannula outperforms all other rigid cannulas by utilizing three dams within the cannula to allow arthroscopic passage of instrumentation and implants, while maintaining the fluid pressurization for a clear visual fluid environment. The inner two dams are designed to maintain the fluid pressure while the outer specialty dam dissipates the fluid pressure to help minimize squirting.

The following illustrations demonstrate the function of the cannula dams as a hand instrument is introduced through the cannula and slightly opening the dam seals.

**Patent pending**

PushLock Percutaneous Insertion Kit

The Percutaneous Insertion Kit for the 2.9 mm PushLock anchor contains a spinal needle, dilation rods, a Spear, and a small diameter metal cannula to precisely locate arthroscopic portals for anchor placement.

Switching Stick Inserter

A Switching Stick can often be hard to handle in a slick, wet environment, especially when trying to insert it through tough shoulder capsular tissue. The new Switching Stick Inserter can help keep it under control. Press and hold the thumb button to insert the 4 mm Switching Stick, then release the button to obtain a secure grasp of the Switching Stick. Press and hold the thumb button again to release.

Mini Suture Cutter

The new Mini Suture Cutter was designed to fit through the Metal Cannula (AR-1923MCS). This suture cutter eliminates the need to switch portals to cut suture tails. With the release of this new device, we have completed the instruments needed to pass, retrieve and cut suture anchors in a 4.7 mm inside diameter cannula. This Mini Suture Cutter also provides the opportunity to cut both LabralTape tails at once. The cutter can also be used on FiberWire.

PASTA Spear Guide

The PASTA Spear Guide simplifies PASTA repair while providing a secure bridging technique that restores footprint dimensions and optimizes footprint contact between tendon and bone. While viewing intraarticularly, pass the needle extension tip of the PASTA Spear through the tendon and position on the articular margin to determine the optimal position and angle of approach for transtendon suture anchor placement. The laser line and asymmetric handle cut-out provide visual and tactile feedback to the surgeon that ensures accurate and reproducible punch placement along the medial footprint margin. A tapered Punch is used to create a small bone socket and a 3 mm SutureTak is impacted into bone.
Headless Compression Screw

The headless titanium 2.5 Micro, 3.5 Mini, and 4.0 Standard Compression FT Screws can be used for a wide range of indications in the upper and lower extremities. They are intended for intraarticular and extraarticular fractures and nonunions of small bones and small bone fragments, arthrodesis, and osteotomies. The variable stepped thread pitch headless design reduces the risk of profile complications, provides compression, and allows for simplified insertion. With these screws, surgeons can now achieve zero-profile stable fixation.

Advantages

Anatomic
Plates are developed to fit the anatomy and contours of the distal radius for a low profile repair and anatomic reduction of the fracture.

Comprehensive
In addition to a comprehensive plate selection, multiple screw options are available including fixed angle locking, variable angle locking and nonlocking.

Options
Fracture patterns pose unique challenges, and the variety of fixation options included allow multiple solutions for even the more complex fracture patterns.

Straightforward Instrumentation
The instrumentation for the 2.4 mm and 3.5 mm screws are easy to identify in specific modules. The screws sit in a graduated tray to ensure the proper length is given to the surgeon, reducing the time needed to measure screws by hand.

Midsubstance Achilles Knotless SpeedBridge Repair

Midsubstance Achilles SpeedBridge repair combines the minimal incision PARS technique with two SwiveLocks into the calcaneus for a knotless repair. This procedure eliminates the weakest part of an Achilles repair, the knots, by using interference fixation of the suture after reapproximating the tendon rupture. The PARS technique or a traditional repair can be used on the proximal stump and then the suture is passed percutaneously through the distal stump to the Achilles insertion site. By eliminating the knots, the repair can possibly be stronger than the traditional open repair, while limiting wound issues with a small incision.

The Midsubstance Achilles SpeedBridge repair is a big advancement in tendon repairs and is based upon the InternalBrace Ligament Augmentation Repair concept popularized by Prof. Gordon Mackay and Arthrex.

By restoring the appropriate soft tissue length and tension in a stable fashion, surgeons can appropriately stress the repaired soft tissue (in this case, Achilles tendon).

Volar Distal Radius Plate for Wrist Plating

The Wrist Plating System provides a comprehensive solution for distal radius fracture management. Narrow, standard, and wide plates are available in multiple shaft lengths. A variety of screw fixation options, Aiming Guides, and instrumentation allow for customizing according to the surgeon's needs and the complexity of the fracture.

MPFL with TightRope and 3.5 mm SwiveLock

The Arthrex MPFL reconstruction implant system options have been expanded with the introduction of the new convenience pack that includes a TightRope for femoral fixation and 3.5 mm BioComposite SwiveLocks for patella fixation.

Along with the familiar MPFL template and disposables, it also includes a new 3.5 mm Cannulated Drill for the 3.5 mm SwiveLocks, as well as a 4 mm spade tip pin. This kit does not obsolete, but rather builds on the success of the existing MPFL kit, by providing anatomic, double bundle reconstruction, replicating the native shape of the MPFL with TightRope fixation.
**NEW Heads-Up Synergy Display**

The Heads-Up Synergy Display allows real-time pump and shaver settings to be viewed on the surgical monitor. Simply connect the Synergy HD3 System to a DualWave and a Synergy HD3 Resection Console to view real-time DualWave pressure, flow and mode changes or Synergy Resection directional mode, set RPM and connected accessories directly from the surgical monitor.

---

**Knotless Hip Labral Reconstruction Kit**

Arthroscopic acetabular labral reconstructions are typically done in revision hip arthroscopy where a labrectomy was previously performed or the labral tissue is degenerative and no longer amenable to a repair. Complete with an arthroscopic measurement probe to measure the segmental labral defect, the Knotless Hip Labral Reconstruction Kit provides surgeons the necessary sutures, implants and instruments for the procedure in a convenient single package.

---

**New Meniscal Resection Tools**

**MegaBiter**

The MegaBiter, designed for maximum efficiency in tissue resection, features a 5.5 mm wide bite. Its low profile design and curved tip assist in reaching the tight recesses in joint spaces.

**CoolCut Torpedo**

The CoolCut Torpedo Shaver’s tapered distal tip design easily slides into tight spaces and between tissue planes, while the uniquely shaped cutting window, tight tolerances and dual inner cutting windows cleanly, precisely and aggressively resect damaged tissue.

---

**iBook: Introducing the 600 and 300 Power Systems**

Arthrex iBook presents the features and benefits of the 600 and 300 Power Systems. Inside, there are several interactive pages that outline the various specifications, performance characteristics, and part numbers of the Power Systems. By viewing the features and benefits, you will see what makes these products competitive in the orthopaedic marketplace.

---

**How to download iBooks from Arthrex.com:**

1. On your iPad, open Safari and log on to Arthrex.com.
2. Navigate to the following page: http://www.arthrex.com/resources.
3. Select “iBooks” from the “Resource Type Filter” on the left side.
4. Select one of the available links and let Safari download the file (this might take a moment).
5. Once the download is complete, select “Open in iBooks” and wait until the iBook opens inside of the iBooks App (this might take a moment).
New Minimally Invasive Quad Tendon Harvest System

Quadricip tendon grafts offer unique benefits for cruciate ligament reconstruction such as a predictably large diameter, low morbidity and a preferable stiffness profile for knee ligament reconstruction. The Minimally Invasive Quad Tendon Harvest System was designed based on published anatomic studies. It allows surgeons to safely harvest a graft of a desired length and diameter through a small incision in a time-efficient manner. The system has the versatility to create grafts to meet the surgeon’s needs whether it be all soft tissue, bone soft tissue, all-inside or transtibial.

- Low profile blade facilitates subcutaneous tendon cutting at fixed widths of 9, 10 and 11 mm
- 7 mm depth limit ensures proper graft thickness
- Safety handle prevents premature cutting of the graft
- Sharp leading edge strips graft away from surrounding tissue
- Depth markings on the shaft confirm graft length
- Cutter allows subcutaneous resection of proximal attachments without a second incision
ACL Preservation

Q. Dr. DiFelice, with your recent release of the technique manual, arthroscopic Primary ACL Repair, it seems that you are challenging the current treatment standard of reconstruction for ACL rupture. Do you think that ACL preservation will become the new standard of treatment?

A. The procedure that I have described is an arthroscopic method of reattaching the ACL back to its native origin or insertion using suture anchors. It is really only applicable to avulsion or “peel-off” type tears and will never become the standard of care for ACL tears, in general, since the majority of them are mid-substance tears that is not effective for this technique. However, it is a nice tool to have in your surgical toolbox.

Q. Isn’t there a lot of historic experience regarding ACL repair that led us to migrate our treatment towards reconstruction?

A. The historic treatment of ACL repair was done as an open procedure and the studies looking at outcomes were significantly limited by the techniques, and knowledge base of the time. Looking back, the studies had significant bias that limited the conclusions that could be drawn. The paper considered to be the landmark paper on ACL repair at the time, by Mark Sherman et al,* was the only one to analyze subgroups, and suggested that proximal tears with excellent tissue quality had a much better chance of positive outcomes. This is the group that I have focused on.

Q. How do you perform the procedure?

A. I liken the procedure to performing a rotator cuff repair in the knee. In fact, this is how I came up with it. I do a lot of shoulder work and thus, I simply migrated the shoulder instrumentation to use in the knee. I use a Labral Scorpion to pass a locking Bunnell-type stitch of #2 FiberWire into each bundle of the ACL. Then, I retension the bundles to their respective origins using a 4.75 mm BioComposite Vented SwiveLock.

Q. You recently reported your early results at the International ACL Study Group meeting in South Africa. Can you share a little about your experiences, thus far?

A. To date, I have performed this procedure on 32 patients. Follow-up is from one week to 6 years. In South Africa I presented on my first 15 patients with an average of 24 months follow-up. To my knowledge, this is the first ever report of arthroscopic ACL preservation for complete ACL tears performed on human beings. I had one early failure in a noncompliant patient, and one patient who was stable at 3 months, but lost to follow-up thereafter. Everyone else is stable and functioning well with outcome scores in the 90s. There have been no other failures in the larger group to date, although follow-up is shorter.

Q. Your experiences would suggest this is a promising technique. What are your thoughts looking forward?

A. Caution must be used in interpreting the data thus far. This is a small, retrospective series with short-term follow-up. However, the data is promising. The technique, although limited by injury pattern, makes sense from a biologic standpoint and opens the door to a new way of thinking about the ligament remnant. Hopefully, it will provide a spark to ignite a new body of research with a more biologic focus to our treatment of ACL injuries.

Histological Analysis of the 2.4 mm BioComposite SutureTak and JuggerKnot™ Suture Anchor*

Objective
The objective of this study was to evaluate and compare the histologic responses of a “solid” bioabsorbable suture anchor (2.4 mm BioComposite SutureTak, Arthrex) and an “all-suture” anchor (JuggerKnot, Biomet) placed in the glenoid rim of dogs.

Methods and Materials
Adult (2-4 years) purpose-bred research dogs (n=6) weighing greater than 20 kg were used for this study with IACUC approval. Using a mini lateral approach, anchors were inserted into the rim of the glenoid using manufacturer’s instructions and instrumentation. One anchor of each type (n=6/anchor) was placed in the glenoid of each dog in either an anterior or posterior location, with the site altered so that each anchor was equally distributed between locations. The suture from each anchor was passed through adjacent labrum and capsule in a simple stitch configuration and tied; however, no tear or defect was created in labral or capsular tissue. The dogs were allowed full ambulation in their runs for the duration of the study. The dogs were euthanized eight weeks after implantation and the glenoids were collected and processed for nondecalcified sectioning to include the long axis of each anchor and staining using Goldner’s trichrome (mineralized bone = green, osteoid and connective tissue = red/brown). One pathologist (KK) who was blinded to anchor type and location assessed the histologic sections with respect to bone socket size and morphometry, anchor presence and integration, and responses of surrounding bone. Anchor socket size data were compared for statistically significant (p<0.05) differences using a t-Test.

Results
All JuggerKnot anchor sites were cyst-like cavities with a thin rim of cortical bone (Figure 1). The cavities were filled with suture and fibrous tissue. All SutureTak anchor sites contained intact anchors with close approximation of trabecular bone with the entire threaded portion of the anchors (Figure 2). No histologic evidence for overt necrosis or inflammatory or foreign body responses in association with the SutureTak anchors was noted. At eight weeks after implantation, mean socket width of the JuggerKnot anchor sites was 6.3 ± 2.5 mm (drill bit diameter = 1.4 mm), which was significantly (p = 0.013) larger than the mean socket width of 2.7 ± 0.7 mm measured for the BioComposite SutureTak anchor sites (original drill bit diameter = 1.8 mm).

Discussion
This data suggests that 2.4 mm BioComposite SutureTak anchors have superior bone integration characteristics and maintenance of socket diameter compared to JuggerKnot anchors, when placed in the glenoid rim in a canine model.

* James L. Cook, DVM, PhD; Keiichi Kuroki, DVM, PhD; and Matt Smith, MD
- Comparative Orthopaedic Laboratory, University of Missouri, Columbia, MO
  Performed at The Comparative Orthopaedic Laboratory, University of Missouri

*JuggerKnot is a trademark of Biomet

Figure 1: Representative images of JuggerKnot anchor sites

Figure 2: Representative images of BioComposite SutureTak anchor sites
Surgical Outcomes System

Can orthopaedic surgeons continue to practice medicine in the future without the collection of evidence-based outcomes data?

The Surgical Outcomes System (SOS) is an orthopaedic and sports medicine global registry, that enables surgeons to easily collect and analyze patient outcomes and treatment procedures to quantify results for healthcare operations, presentation, publication, patient education, marketing and reimbursement.

SOS facilitates the comparative analysis on individual outcomes, site outcomes and the global de-identified average for different surgical procedures, grafts and implants, providing evidence-based data for medical decision making.

In January of 2014, we launched the SOS Version 2 platform. Here is a summary of the Version 2 key features:

- Introducing 2 models of SOS – research and healthcare operations (HCO)
- The HCO model is recommended for sites who intend on collecting outcomes for quality assurance and operational purposes rather than research
- New studies added – elbow, hip arthroplasty and hand & wrist
- New outcome measures added – both patient reported and objective
- Co-morbidity indices and SF-6D cost-effectiveness calculation
- “Favorite” templates within the postoperative data section, allowing built-in time efficiency
- Robust data mining, analysis and the ability to export raw data
- Surgeon portal and patient portal compatibility on smart device or tablet
- Intuitive dashboards that display real-time updates for enhanced patient compliance tracking
- Patient satisfaction/expectation questions
- Patient marketing materials for enhanced patient engagement! These include both a patient postcard for recruitment purposes and an educational patient brochure!

Request a demo and learn more by visiting: https://surgicaloutcomesystem.com or email SOS@Arthrex.com