QuadPro™ Tendon Harvester

Quadriecp tendon grafts offer unique benefits for cruciate ligament reconstruction, such as a predictably large diameter, low morbidity, preferable stiffness profile, and improved clinical outcomes for knee ligament reconstruction. The QuadPro tendon harvester is the latest innovation for harvesting the quadriceps tendon. It was designed based on published anatomic studies and allows surgeons to safely harvest a quadriceps graft.

QuadPro tendon harvesters are available in sizes 8 mm to 11 mm to accommodate various graft requirements and techniques. The handle is a clear polycarbonate material designed to be safe and strong and to provide visualization of graft length during the harvest. The QuadPro tendon harvester allows for a minimally invasive dissection and harvest. The sharp tip harvests a smooth, cylindrical graft. This new harvesting technique reduces graft-site morbidity and overall procedure time. The single-use design ensures sharpness, sterility, and convenience for every case.

NanoGrip for the NanoScope™ Camera

The NanoGrip is now available. The ergonomic silicone sleeve provides a comfortable, firm hold of the NanoScope camera to provide precise joint maneuverability.

- The NanoGrip can easily press fit onto the 2.26 mm NanoScope camera
- Various finger placement positions for hand-size customization
- Sterile packaged
- Tapered for precise imaging control
- Balances the camera weight to prevent joint fallout within tight spaces

Subscribe to a digital version of Scope This Out here:
https://arthrex.info/digitalSTO
The new Arthroscopy Instrument Set is a dramatic improvement over all other arthroscopy sets available on the market today. This set was designed with better material properties to be more durable, more functional, and more ergonomic. Each family of instruments is color-coordinated based on instrument type. The handle designs were altered for a more ergonomic feel with increased durability in mind and are now made of titanium instead of Reidel plastic. Additionally, all handled instruments feature an indicator knob to give surgeons the tactile feedback to quickly find the working end of the instrument. On the chondral picks, this knob also serves as the attachment site for the strike plate, allowing surgeons to microfracture with pinpoint accuracy.

Great for joint preparation with the new minimally invasive ankle fusion plate.

The Synergy\textsuperscript{®} system is the next-generation camera system building on the success and innovation of the Synergy\textsuperscript{H.D.3} and Synergy\textsuperscript{U.H.D.4} systems. The Synergy\textsuperscript{®} system continues to integrate a 4K camera system, LED light source, and image capture system but adds multiple augmented reality features to enhance anatomical structures to help surgeons during complex procedures. Current Synergy\textsuperscript{2044} camera heads are compatible with the new controller, but Arthrex is introducing the world’s first 4MOS 4K camera head, providing fluorescence imaging capabilities to assist in highlighting tissue perfusion for laparoscopic and colorectal procedures. The Synergy\textsuperscript{®} system is compatible with Arthrex’s Synergy.net\textsuperscript{™} software and Synergy Matrix\textsuperscript{™} system product lines and expands networking tools to improve performance and security. A state-of-the-art user interface provides easy setup with surgeon preferences by procedures, and the easy transfer of images and videos to iPAD\textsuperscript{®} devices enables easy postoperative educational reports that can be sent securely to patients.

The Torpedo™ Shaver Blades

The Torpedo shaver blade was released in 2013 and has revolutionized arthroscopic tissue resection ever since. Arthrex resection always innovates by seeking to produce the best products, especially within this commoditized market. Surgeons from all over the world have given more positive feedback on the Torpedo shaver blade than any other shaver blade that Arthrex produces. The Torpedo shaver blade, with the largest product offering on the market, is different from any other conical blade. The Torpedo shaver blades are known for being able to resect tissue quickly, cleanly, and efficiently due to several factors:

- **Dual Inner Cutting Windows** – allow for fast resection and are twice as efficient than a regular blade with just one window.
- **Extremely Sharp Blade** – the blade acts like a scissor due to its tight tolerance between the inner and outer tubes for clean, precise, and aggressive cutting while leaving a smooth edge. This is desirable for meniscectomies, labral debridements, and chondroplasties, but aggressive enough to take down biceps tendons, ACLs, and hip capsules.
- **Elongated Outer Window** – limits the amount of tissue from entering the mouth, thus reducing clogging.
- **Tapered Tip** – allows access into and around the joint space, especially in tight areas, to decrease scuffing of cartilage and to maneuver around delicate tissues, similar to a switching stick.

Medical Education is pleased to announce the launch of the Hand and Wrist section on OrthoPedia.com. With 51 impactful videos, this section covers common hand and wrist pathologies, including carpal tunnel syndrome, thumb CMC arthritis, distal radius fractures, and more. This launch also completes the phase 1 offerings for the upper extremity portion of OrthoPedia.com. The lower extremity modules will launch in the coming months.

Arthrex developed and designed OrthoPedia as an open-access global website for health care professionals specialized in musculoskeletal medicine to study orthopedic pathologies and treatment options. We invite you to look for yourself and share this information with HCPs who may be interested in learning more about hand and wrist pathologies.
BioCartilage® Hip Delivery Kit

The Orthobiologics team is pleased to announce the immediate availability of the BioCartilage Mixing and Delivery Kit for the hip. This kit has been specifically designed for the hip joint and includes the joint-specific ArthroPaddle™ delivery feature.

Full-thickness osteochondral lesions of the transitional zone on the acetabulum are often associated with cam-type femoroacetabular impingement (FAI). These lesions can be treated with marrow stimulation and evidence exists to support the augmentation of marrow stimulation procedures in the hip using BioCartilage extracellular matrix.1 Additionally, resected autologous tissue may be collected using the GraftNet™ device. This tissue has been shown to have a high degree of viability and may be mixed in standard fashion with BioCartilage extracellular matrix and autologous fluid to provide an easy-to-apply composite graft.2

AutoPose™ Fat Harvesting System

The Arthrex AutoPose system provides for safe and rapid preparation of autologous microfragmented adipose tissue (MFAT) for injection. AutoPose Access assists with harvesting of adipose tissue, while the vacuum-lock AutoPose Restore syringe is used to aspirate, concentrate, and resize. The resulting washed autologous MFAT provides cushioning and support to facilitate natural healing of damaged or injured tissues. Both AutoPose Access and AutoPose Restore will be available through beta launch in November 2020.

- Precision
  Controls both depth and range of motion in harvesting procedure to ensure safe access within a single plane
- Aids infiltration and harvest
  Vacuum-assisted tissue stabilization for infiltration and harvest
- Minimally invasive
  Access to adipose tissue with no need for incision or suture
- Easy to use
  Controlled harvest of up to 50 cc of lipoaspirate
- Simple
  Intuitive process enables quick and easy preparation of up to 25 cc of washed MFAT
- Sterile
  Dual-chamber syringe system for harvesting, concentrating, and reserving of fat within a closed system minimizes risk of environmental contaminants
- Superior
  Viability of structural MFAT is retained while providing for easy injection through a 21-ga cannula

References
Meniscal Root Repair Kit
With BioComposite SwiveLock® Anchor

Meniscal root avulsions are a challenging injury, causing meniscal extrusion and loss of hoop stress distribution, which can lead to the development of knee arthritis.1 Securing the meniscus in a small bone socket has proven to be an effective means to restore hoop stresses and improve outcomes.2

The Meniscal Root Repair Kit With BioComposite SwiveLock anchor contains the most commonly used implants and single-use items for meniscal root repair. The convenience of an all-in-one kit saves time by having the necessary items readily available and reduces the amount of shelf space occupied by multiple single items.

References
The Role of Nano Arthroscopy for Orthopedic Trauma Surgeons: Periarticular Fracture Arthroscopy and Fracture Reduction Aid

Featuring Christopher W. Hodgkins, MD
(Miami, FL)

All periarticular fractures have the potential for intra-articular injuries, such as chondral or osteochondral injuries with resultant loose bodies, loose bodies from the fracture line, or ligamentous injuries. While most ankle fractures do not have an intra-articular extension of the fracture line, they are periarticular fractures/injuries; the energy vector travels through the joint, creating the potential for significant intra-articular injury.

This applies to most common fractures (eg, periarticular proximal humerus, elbow, distal radius, and tibial plateau) treated by trauma surgeons. Isolated dislocations and fracture-dislocations also have a high incidence of intra-articular injury that, if treated in extensive open fashion, allows direct intra-articular inspection. Reduction or fixation in a closed, or indirect, fashion restricts intra-articular examination and the ability to identify, document, and address intra-articular pathology.

Nationwide, progressive thought leaders in trauma are experiencing the benefits of minimally invasive fracture fixation (eg, fibula nail) and realizing the importance of (1) managing injuries from a comprehensive perspective, (2) addressing potential intra-articular injuries, and (3) acknowledging how biologics accelerate and improve patient outcomes.

Often, trauma cases are unpredictable, leading to short-notice scheduling at less-than-ideal times. The prospect of requesting a complex arthroscopic setup for an already complex case with unfamiliar staff late at night is enough to turn anyone off from using a scope during the case. The NanoScope™ system eliminates complexity. The peel-packed nature of this plug-and-play device makes it a no-fuss step in case prep, providing the advantages of arthroscopic visualization without the inconvenience. I believe this revolutionary change will be standard practice for all periarticular fracture cases shortly. The learning curve for setup and operation is minimal, and after one case, I am confident other surgeons will agree with me.

Trauma surgeons will benefit from the ability to quickly and easily identify, document, and potentially treat intra-articular injuries, which will undoubtedly improve patient outcomes in simply removing a foreign body. Seeing the image can also help patients better appreciate their injuries, while helping surgeons determine why certain patients continue to have pain, aiding prognosticate patient identification.

I began using arthroscopy to address periarticular fractures in professional athletes in part for this reason. It has proved invaluable when advising on the extent of an injury and potential future prognosis. This is also valuable as patients in the general population are becoming more demanding consumers. I think they will eventually seek out surgeons who use minimally invasive techniques and treat injuries more comprehensively with the use of arthroscopy.

The NanoScope system enables a trauma surgeon to visualize, obtain, and prove a perfect anatomic fracture reduction in small spaces in any joint. As trauma surgeons, we all judge ourselves on our ability to fix fractures perfectly. There is no better judge than the NanoScope system—it will make us better surgeons.

Q. Why is the scope better than fluoro? Would you scope before and after reduction and fixation?

A: Fluoroscopy can lie! We’ve all been there, manipulating the fluoroscopy view to make the fracture reduction look better. The scope doesn’t lie! Good fluoroscopy views of the joint reduction are sometimes very difficult to obtain, depending on the radiology technician’s ability, the fracture pattern, and the size of the patient, etc. The scope eliminates all of this and gives you a quick, accurate read of the entire fracture reduction.

I scope before reduction to identify and document pathology and treat what I can. It is often easier to maneuver the scope in the joint before definitive fracture reduction and stabilization. I sometimes see incarcerated fragments in the fracture line, which I can remove or manipulate as part of my reduction. I also scope after reduction and fixation to confirm and document reduction and ensure I did not violate the joint with hardware. For ankle fractures, I assess syndesomatic reduction and stability after addressing all associated fractures.

Q. When scoping fractures, are you doing any arthroscopic treatment before or simply visualizing?

A: It depends. Primarily I am visualizing and documenting. However, if indicated, I will address the pathology that I encounter. There are still unanswered questions about the role of addressing chondral and osteochondral injuries in the acute fracture setting that will be answered with time.

The NanoScope system has revolutionized my practice in the following ways:

**PRACTICAL ISSUES**
- Easy, quick setup (even I can set it up)
- Available 24/7
- Allows plug-and-play capability
- Less technical skill and knowledge required to set up and operate
- Minimally invasive; maximally informative

**PATIENT CARE**
- Identify, document, and treat intra-articular pathology
- Visualize reductions, the gold standard of fracture reduction
- Patients can visually appreciate their pathology
- Counsel patients on potential future issues

**ECONOMIC ISSUES**
- Potential for rapid in-office diagnostics or procedures
- Marketable practice feature to attract increasingly demanding consumers
- Very positive patient feedback
Case Presentation

*InternalBrace™ Ligament Augmentation for Chronic Ankle Instability in a Young Athlete*

**Patient Background**

A 17-year-old high-level competitive gymnast presented with a 3-year history of intermittent ankle sprains, including three major ankle sprains and multiple minor sprains. She suffered from repetitive episodes of instability during both training and competition, which persisted despite treatments of immobilization in boots, bracing, and taping, as well as extensive physical therapy.

**Diagnosis**

Physical examination revealed a mild ankle effusion, with good global strength, including eversion strength. She had a grossly positive anterior drawer on the right ankle on clinical testing.

At this point, she was diagnosed with chronic ankle instability and was suffering significant symptoms despite appropriate nonsurgical treatment. A surgical plan was developed to include ankle arthroscopy, followed by open reconstruction of the anterior talofibular (ATFL) and the calcaneofibular (CFL) ligaments using *InternalBrace* augmentation.

*Featuring Nicholas T. Gates, MD*

(Cincinnati, OH)

**Surgical Technique**

For this surgery, I begin with arthroscopic evaluation and debridement of an anterolateral impingement lesion. Then I proceed with an open curvilinear exposure of the anterolateral capsular ligaments, identifying the redundant ATFL and CFL tissue. This allows an anterolateral arthrotomy through the capsule, in line with the incision. The proximal flap off the distal fibula is retracted to expose the anterior distal fibula, including the ATFL and CFL insertions.

I then place two 2.0 SutureTak® anchors, one each into the footprint of the ATFL and CFL of the distal fibula. I then perform the appropriate drilling and tapping of the fibula for the *InternalBrace* construct insertion, in a location centered between the two SutureTak anchors. Next, I make a small stab incision through the capsule where the ATFL inserts onto the talus. At this talar footprint of the ATFL, I drill, tap, and insert the SwiveLock® anchor with Fiber-Tape® suture into the talus. At this point the distal fibula is prepared, the *InternalBrace* implant is in the talus, and I can proceed with the reconstruction.

Now I can use the double-armed 2.0 SutureTak anchors to perform a strong imbrication of the native ATFL and CFL capsular ligaments. This completes the repair of the native ligaments and effectively closes the arthrotomy.

The extra-articular *InternalBrace* augmentation is then accomplished by placing the double-stranded FiberTape suture, which has already been anchored in the talus, into the predrilled and pretapped distal fibular hole using a SwiveLock anchor. Care is taken to hold the ankle in a neutral position with a bump under the calf, but not under the heel, to avoid an inadvertent anterior drawer during placement. If desired, it is possible to leave the driver in the fibular SwiveLock anchor while testing both ankle and subtalar range of motion (ROM) as well as anterior drawer. Thus, if I feel the *InternalBrace* construct is slightly too tight or loose, I now have the ability to back out the fibular SwiveLock anchor, adjust tightness, and then reinsert it. By using the described technique palpating...
“My patients experience less pain and significantly better satisfaction, both during the immediate postoperative period and in the second 6 weeks after surgery.”

with a hemostat, using a marking pen on the FiberTape suture to mark the appropriate depth, keeping the ankle in a neutral position, and possible testing ROM prior to removing the driver, appropriate tension is achieved.

At this point, I then suture down any remaining redundant fibular flap superficial to the InternalBrace construct onto the capsule.

**Rehabilitation Protocol**

My patients are allowed immediate partial weightbearing on the day of surgery. On post-op day 3, patients are seen in the physical therapy department, placed into a CAM boot, and can begin full weightbearing as tolerated, as well as active ROM and strengthening exercises. By week 2, full calf strength and proprioception exercises have been instituted. Between weeks 4 and 6, we add plyometric agility and advanced strengthening exercises to the protocol. Patients are weaned out of the boot for activities of daily living (ADLs) between weeks 4 and 5. At 6 weeks, a return-to-running program for straight-ahead running can be added to the ongoing agility training. At week 8, sport-specific exercise and training are instituted. Return to play is allowed between weeks 8 and 12, depending on the patient’s rehab success and motivation.

**Experience Using InternalBrace Ligament Augmentation**

I began using this surgical technique 6 years ago. The rehab protocol was gradually developed over the past 6 years, gradually moving up the time at which we institute ROM, strengthening, and activities. I have been using the above rehab protocol for the past 3 years.

As a result, my patients experience less pain and significantly better satisfaction, both during the immediate postoperative period and in the second 6 weeks after surgery. I attribute this satisfaction to earlier return to walking, ADLs, and sporting activities.

The competitive athletes I have treated are very pleased with the earlier return to play compared to protocols I used before adopting InternalBrace augmentation. Adult athletes particularly enjoy the earlier return to ADLs and work that is afforded by the rapid rehab, as well as the reliability of returning to their sport of choice. This reliable patient satisfaction from both patient populations has led to a sustained interest from the high school and college athletic community, as well as the community of active adults where I practice.

The case patient is now 4 weeks out from her surgical date. She has progressed into full strengthening and proprioception activities with minimal discomfort. With her, as with many motivated athletes, the challenge for the physical therapist is to prevent her enthusiasm from allowing her to attempt to return to play even before the 8-week mark. The comfort and the confidence that the patient tends to feel with the InternalBrace augmentation, compared with a standard modified Brostrom-Gould, produces this desire to advance therapy and return to play. It is an experience my patients have been reporting to me for years since I converted to full-time use of the InternalBrace procedure for lateral ligament reconstruction for chronic ankle instability.
Q. The Arthrex Mini Comprehensive Fixation System (CFS) launched earlier this year. What stands out about the system for you?

A: Shin: The variety of instruments offered separates this system from others. The fine-toothed Kocher clamp is extremely useful for the atraumatic maintenance of reduction of small fracture fragments. The radiolucent lobster claw is also very useful; I hope that more instruments can be radiolucent in the future. The variety of plate designs is also a strength of this set; any small bone fracture can be fixed with one of the many plates offered in this set, or just screws if a plate isn’t needed.

Lee: The name “Comprehensive” says it all; it really is the ultimate tool chest for fixing any and all types of fractures. It’s comforting to know that this one set can take care of whatever you might be presented with. Also, it addresses some of the most frustrating aspects of fracture care by providing comprehensive fracture reduction clamps, designing secure screw holding sleeves, and even eliminating the need to measure screws.

Adamany: I love the flexibility of the set. Not only can I do small joint arthrodesis, but I can also do fracture fixation of the hand and wrist while only having to open one set.

Q: Have you had any interesting cases you want to share? (elbow, ulna, clavicle, etc)?

A: Shin: I enjoy my thumb MCP fusion cases even more now using the 6-hole “fusion” plate from this set. The plate is easily bendable and, instead of a hole, the sturdy middle section lies nicely over the joint.

Lee: Besides various complex hand fractures, this set is so versatile for other locations. I’ve used it to fix fractures of the radial neck, coronoid, as an adjunct to the primary plate for a complex Monteggia fracture, for distal ulna fractures, as the second plate fora clavicle nonunion double plate, etc.

Adamany: I have an ulnar shaft fracture and a bony UCL injury (two separate cases). The UCL case was the one that had a 1.4 mm screw and a Nano Corkscrew anchor.
Q: This is the first system to include long compression screws for intramedullary fixation. What has been your experience with this and how has your view on intramedullary fixation changed over time?

A: Lee: I was admittedly a slow adopter of intramedullary screw fixation until I used this system. It clearly has advantages over more traditional methods of plating and K-wires, such as less irritating hardware, stronger fixation allowing earlier rehabilitation protocols, and earlier return to sports and work.

Adamany: Like most surgeons, I was initially resistant to this technique and worried about the cartilage. As I have now seen, I am able to place the screw in the dorsal third of the metacarpal, which helped get an athlete back to play quickly.

Q: Do you have any tips and tricks after your first few cases?

A: Lee: I like the fact that the drill sizes mirror the K-wire sizes so they can be used interchangeably in case the drill is bent, dropped or, for whatever reason, mixed up. I personally like reading the screw sizes off of the drill guide, especially with locking screws since the measurement doesn’t necessarily need to be as exact to provide the same biomechanical strength. This, coupled with the stadium seating, allows me to save so much time and annoyance waiting for my screw!

Adamany: It really depends on the case. For fracture fixation, I encourage you to use the BB-Tak for provisional fixation. Additionally, I have sometimes used only a small K-wire instead of the drill for the 1.4 mm screws because I like the control of using the collet and K-wire as I can adjust the working length of the “drill” easier.
**Q.** As reverse total shoulder arthroplasty (rTSA) surpasses 15 years of use in the United States, its indications for use have expanded considerably to include treatment of cuff tear arthropathy in younger patients, proximal humeral fractures, etc. What do you envision being the next evolution of its use?

**A:** Early on, rTSA was widely regarded as a salvage procedure. With increasingly positive outcomes over time, rTSA became a reliable primary treatment for irreparable cuff tears (with or without arthritis), proximal humeral fractures, or complex glenoid pathologies that are not easily treated with an anatomic TSA. I believe the next evolution of rTSA will be addressing these more complex glenoid pathologies with even greater confidence and with more predictable outcomes. This will largely be possible because of our ability to better visualize and understand glenoid deformities using preoperative planning software and having implants with backside geometries corresponding to bone worn away by years of erosive humeral head articulation.

**Q.** How have more complex cases historically been treated?

**A:** Commonly, surgeons would asymmetrically ream the glenoid to bring it closer to its native version. For cases of severe wear, this was likely not a viable solution because of the potential to overmedialize the joint line and sacrifice too much bone. In these cases, we may have opted to harvest and use an autologous bone graft to better approximate the optimal placement of the glenoid components. For some patients, this may still be an advisable strategy; however, with the introduction of augmented baseplates, the need for grafts has been significantly reduced.

**Q.** What percentage of your rTSA patients do you estimate have been treated with an augmented prosthesis?

**A:** Most often, augmented prostheses were used for only the most challenging cases, for which the potential of providing a viable solution for the patient outweighed the complexity and length of the technique. Historically, it’s been a low percentage. However, I foresee that changing with the introduction of the Augmented MGS, which I’m currently using. With the easy-to-use baseplate, I believe that a significant percentage of patients could receive an augment to correct even small amounts of superior tilt or mild retroversion to minimize reaming.

**Q.** You were among the first in the world to use the Augmented MGS clinically. Tell us about your experience.

**A:** The Augmented MGS baseplate does an exceptional job at eliminating tradeoffs. The augment wedge options allow me to address advanced glenoid pathologies with a technique that is often no more complex than implanting a standard baseplate. The simplicity and functionality of the instrumentation has given me the ability to address complex anatomies efficiently and with more confidence. Additionally, being able to preoperatively assess the patient’s anatomy using the Virtual Implant Positioning™ (VIP) system is invaluable. Selecting and optimally placing the augmented baseplate in a virtual setting helps eliminate intraoperative guesswork, which I believe increases the likelihood for a favorable outcome for the patient.

**Q.** What do you feel sets the Augmented MGS apart from other baseplates you’ve used?

**A:** That’s an interesting question, as I’ve used several different augmented prostheses. Having implants available that address a wide variety of pathologies is one key component. In my experience, competitive systems provide a surgeon with, at most, a few implants to fit all patient anatomies. The Augmented MGS will have a much greater scope, including both full and half-wedges in multiple angles, lateral offsets, and even augment orientations relative to peripheral screw holes. This essentially provides a custom implant in an “off-the-shelf” product.

The reaming technique is also far better than any other that I’ve tried. Exposure can be challenging, and having a reamer with a relatively small footprint, which is used over a neutral guidewire, is very helpful. I also appreciate the fact that the reamer uses a disposable cutting face, so even in sclerotic bone, it’s quite sharp and efficient in shaping the glenoid appropriately.

Being able to visualize and plan the case using the VIP™ system elevates the Augmented MGS even more. It’s truly a case of the whole being greater than the sum of its parts.
**FiberTak® Button for Biceps Tenodesis**

The all-suture FiberTak button can be used for both inlay and onlay distal and proximal biceps tenodesis. The sheath is preloaded with two 2-0 FiberLink™ sutures that are used to shuttle the #2 FiberWire® suture or SutureTape whipstitch limbs through the sheath. The FiberLink sutures are loaded in opposite directions, allowing for a tension-slide reduction technique.

The 2.6 mm drill reduces the hole 19% compared to the traditional 3.2 mm hole commonly used for metal buttons. Since there is no metal, the FiberTak button is not visible on x-ray and is approximately 17% stronger than metal buttons.1 This button-first technique also eliminates the need to find the tunnel after drilling.

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1. Place the drill guide at the desired location and drill the first cortex using the 2.6 mm drill. Leave the guide in place and insert the button through the guide. Tap on the handle until the inserter is flush with the drill guide. Remove the orange tab.

2. Use the tension-slide technique to reduce the tendon onto the bone.

3. Remove the inserter and guide. Lightly pull evenly on the FiberLink sutures to ensure that the button is deployed. Separate the FiberLink sutures (blue and white/black on each side) and pull on each link to ensure it slides easily.

4. Pass one limb back through the tendon using the free needle and tie a knot to complete the repair.

5. Shuttle a whipstitch limb through the button using one of the FiberLink sutures. Do not shuttle the thickened portion of the FiberLoop® suture through the button. Use slight tugs once the suture meets the button sheath. Discard the FiberLink shuttle suture once the whipstitch limb has been passed through the button. Pull lightly on the remaining shuttle link to verify that the button is set. Shuttle the second whipstitch limb through the sheath in the opposite direction using the remaining link.

6. Optional inlay repair with a tenodesis screw.

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Reference
ACL Repair With InternalBrace™ Ligament Augmentation vs ACL Reconstruction

Purpose
To report the clinical outcomes of pain, function, and quality of life for patients who underwent ACL repair with InternalBrace ligament augmentation vs ACL reconstruction.

Method
The inclusion criteria for this analysis were patients enrolled in the Surgical Outcomes System™ global registry who underwent ACL repair with InternalBrace ligament augmentation or ACL reconstruction. Standard patient-reported outcomes questionnaires for VAS, KOOS ADL, and SANE Knee were administered at standard time points postoperatively. Results were reported from presurgery to 5 years postsurgery. The number of patients included per group is shown below.

<table>
<thead>
<tr>
<th>Time Point</th>
<th># of Compliant ACL Repair InternalBrace Ligament Augmentation Patients/Total Patients</th>
<th># of Compliant ACL Reconstruction Patients/Total Patients</th>
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</thead>
<tbody>
<tr>
<td>Presurgery</td>
<td>130/237</td>
<td>610/9658</td>
</tr>
<tr>
<td>1 year</td>
<td>136/202</td>
<td>4008/7657</td>
</tr>
<tr>
<td>2 years</td>
<td>88/136</td>
<td>2608/5337</td>
</tr>
<tr>
<td>5 years</td>
<td>N/A</td>
<td>274/871</td>
</tr>
</tbody>
</table>

Trend Conclusion
Based on these results, the pain, function, and quality-of-life scores of ACL repair with InternalBrace ligament augmentation appear to trend toward similar outcomes to ACL reconstruction. However, no claims can be made on the potential of these results without further analysis to determine statistical significance.

Reference

https://surgicaloutcomesystem.com

The views expressed in this newsletter reflect the experience and opinions of the presenting surgeons and do not necessarily reflect those of Arthrex, Inc.

Any 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 or outcomes.

Products may not be available in all markets because product availability is subject to the regulatory or medical practices in individual markets. Please contact your Arthrex representative if you have questions about availability of products in your area.