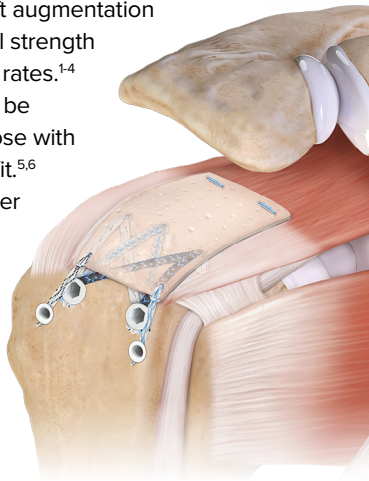


# SCOPE THIS OUT

..... A Technical Pearls Newsletter for Orthopedists .....

## CuffMend™ Rotator Cuff Augmentation System

The CuffMend system provides an efficient, simplified approach for augmenting rotator cuff tears. Several studies have demonstrated how graft augmentation helps improve biomechanical strength and increase tendon healing rates.<sup>1-4</sup> While augmentation may not be necessary for all patients, those with a high RoHI score may benefit.<sup>5,6</sup> Deliver the graft of choice over partial- or full-thickness tears in less than 10 minutes.

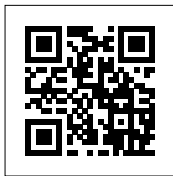


Medial fixation of the graft is accomplished using the new FiberStitch™ RC implant, an all-suture device available in straight and reverse-curve options for optimal placement. Graft options are expanded to include thicker, 2 mm ArthroFlex grafts in addition to the new Autograft Tissue Compression System, which uses the patient's own biceps tendon to provide an autologous graft. The new PEEK-eyelet self-punching PushLock® anchor eliminates surgical steps while providing a simplified technique for tensioning and fixating the lateral aspect of the graft.

ArthroFLEX® is a registered trademark of LifeNet Health.

### References

1. Barber FA, et al. *Arthroscopy*. 2012;28(1):8-15.
2. Bailey JR, et al. *Am J Sports Med*. 2019;47(6):1496-1506.
3. Omae H, et al. *Clin Biomech (Bristol, Avon)*. 2012;27(8):789-792.
4. Gilot GJ, et al. *Arthroscopy*. 015;31(8):1459-1465.
5. Kwon J, et al. *Am J Sports Med*. 2019;47(1):173-180.
6. Jackson GR, et al. *Arthroscopy*. 2022;38(7):2342-2347.



Learn more about RoHI

## Knee FiberTak® Anchor

Knee FiberTak anchors are the first all-suture implants designed specifically for the knee. Available in 5 configurations (Double Knotless, Hybrid, Double Knotted, Button, and with FiberTape® suture for the *InternalBrace*™ technique), the redesigned, softer anchor body creates a more consistent bunching effect for reliable deployment. The shorter, pistol-grip Knee FiberTak drill guide makes minimally invasive knee surgery more ergonomic, allowing surgeons to operate closer to the anatomy for more precise drilling and anchor insertion. This family of anchors is versatile enough for use throughout the knee, most notably for MPFL, LET, and extensor mechanism repairs.

The *InternalBrace* surgical technique is intended only to augment the primary repair/reconstruction by expanding the area of tissue approximation during the healing period and is not intended as a replacement for the native ligament. The *InternalBrace* technique is for use during soft tissue-to-bone fixation procedures and is not cleared for bone-to-bone fixation.



## Coming Fall 2024: Synergy Power™ System

Introducing the powerful, versatile, and reliable Synergy Power system, designed for a variety of orthopedic surgical applications. This system offers increased flexibility and improved efficiency, helping complete cases with ease.

### Features and Benefits

- Single-system solution for arthroplasty, trauma, sports, and distal extremities
- Two ergonomic, lightweight handpieces—a dual-trigger rotary drill and a dedicated sagittal saw—for all drilling, reaming, and sawing needs
- Innovative twisting collar mechanism for smooth attachment connection and release
- Autoclavable and aseptic lithium-ion batteries
- Hermetically sealed components with IPX 6, 8, and 9 and advanced anodized coating for increased reliability and life expectancy of the system



# Hand & Wrist

## NanoScopic™ Carpal Tunnel Release System

Designed for precision and efficiency, the simplified, all-in-one NanoScopic carpal tunnel release system streamlines ECTR procedures. This disposable system offers a straightforward, single-handed pull-blade technique for a quick and exact procedure, while its ergonomic design maximizes comfort and enhances feel and function.

- Sterile, single-use system for a fast procedural experience
- Ideal for either the procedure or operating room
- Uses the latest NanoNeedle imaging technology
- Compatible with the NanoScope™ imaging console
- Eliminates heat and subsequent fogging seen in traditional camera systems



## 2.4 mm Distal Radius Plate Sterile Implant Kit

The Sterile Volar Distal Radius Plate Implant Kit offers an all-inclusive solution for volar distal radius fracture fixation.

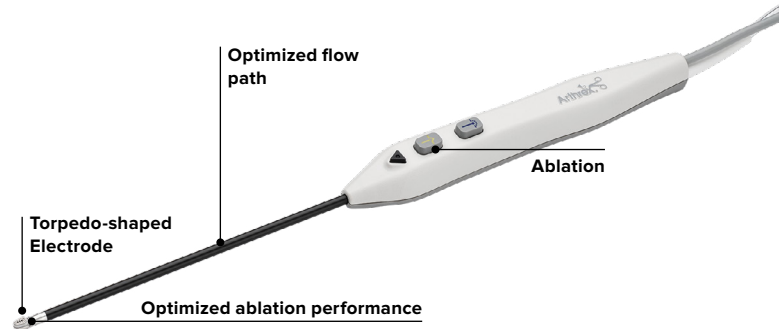
- **Sterile**—All implants and instruments are sterile-packaged and ready to use.
- **Innovative**—KreuLock™ locking compression screws combine the proven technology of the Headless Compression FT screws with a locking screw head to provide gradual compression across bone fragments.
- **Compact**—The kit is designed to take up a minimum amount of shelf space for better storage.
- **Quality**—The instrumentation meets Arthrex's high standards for quality and reliability.



# Imaging and Resection

## Apollo<sup>RF</sup> i90 Bipolar Radiofrequency Probe

The newest addition to the Apollo<sup>RF</sup> product line is the i90 probe, featuring enhanced ablation and optimized aspiration. With a unique torpedo-shaped tip and edge control, this probe allows for easy access and maneuverability, as well as greater precision and control.



### Features

- Optimized flow rate/flow path\* designed to efficiently remove bubbles for better visual clarity, reduced tissue clogging, and faster removal of warm fluid from the joint<sup>1</sup>
- Torpedo-shaped electrode\* promotes easy joint access and accurate tissue removal
- Edge control for a defined plasma edge that enables greater precision and a gentle ablation distally and on the sides of the electrode
- Low profile to fit down a working envelope of 5.0 mm or larger
- Shorter working length of 140 mm

\*Patent pending

### Reference

1. Arthrex, Inc. Data on file (AR-9831 clog performance design verification). Naples, FL; 2021.



# Knee & Hip

## FiberStitch™ 1.5 Implant

The FiberStitch 1.5 implant is the product of relentless innovation. A low-profile delivery needle results in less tissue morbidity and smaller implants, providing stronger fixation compared to previous FiberStitch implants.<sup>1</sup> The proven superiority of FiberStitch all-suture anchors for all-inside meniscal repair is evident when compared to traditional PEEK implant systems.<sup>2</sup> Made with 2-0 coreless FiberWire® suture, soft anchors provide secure arthroscopic all-inside knotless meniscal repair.



In addition to a traditional curved delivery device, the FiberStitch 1.5 implant system offers multiple delivery configurations, including a 24° curve, a reverse curve, and a straight needle. All options can be customized for specific curvatures, and the ergonomic handle is designed for single-handed implant delivery. Active implant-deployment technology minimizes needle exposure beyond the meniscus, eliminating the need to past-point the needle.

### References

1. Arthrex, Inc. Data on file (APT-06136). Naples, FL; 2023.
2. Bachmaier S, Krych AJ, Smith PA, et al. Primary fixation and cyclic performance of single-stitch all-inside and inside-out meniscal devices for repairing vertical longitudinal meniscal tears. *Am J Sports Med.* 2022;50(10):2705-2713. doi:10.1177/03635465221107086

## 2.4 mm Knotless Hip SutureTak® Anchor

The 2.4 mm Knotless Hip SutureTak anchor is Arthrex's first knotless, tensionable hard-body anchor that can be delivered through curved drill guides. Drill depth is reduced by 30% when compared to the existing 3.0 mm Knotless Hip SutureTak anchor, making it the ideal choice for acetabular labral repair. The anchor is compatible with the same drill guides as the Knotless 1.8 Hip FiberTak® anchor, making it suitable for primary or backup labral fixation.

### Features

- Available in PEEK
- #1 machine-tapered suture
- Adjustable tensioning helps control labrum positioning
- 1.8 mm and 1.9 mm drill bit options
- Can be delivered through straight and 12°, 16°, and 20° curved drill guides
- 44 lb pullout strength in 20/40 PCF foam block<sup>1</sup>

### Reference

1. Arthrex, Inc. Data on file (APT-06129). Munich, Germany; 2023.

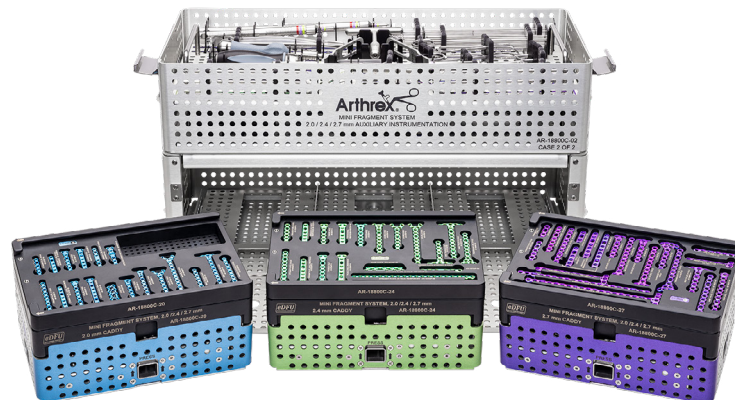


# Trauma

## Mini Fragment System

The Mini Fragment System is designed to aid in the reduction and fixation of small and long bone trauma injuries. The modular tray provides the most comprehensive offering on the market, with screw and plate options in 2.0 mm, 2.4 mm, and new 2.7 mm variants.

Each caddy features a compact instrumentation drawer with size-specific instrumentation. Reduction instruments and multiple plate-bending options are available to meet anatomic needs and surgeon preferences.





# Shoulder & Elbow

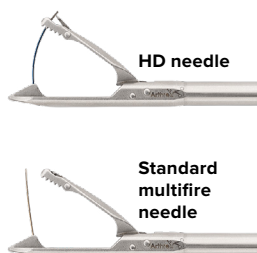
## New HD Scorpion™ Needle With MegaLoader

The new HD Scorpion needle is the strongest, most consistent Scorpion needle available today.<sup>1,2</sup> The latest design has a thicker, precurved nitinol tip, resulting in increased strength and longevity that delivers more consistent passes through the top trap door of the Scorpion suture passer.<sup>1,2</sup>

**Strength and Endurance**—Compared to the previous model, the new design allows 2x greater penetration strength through tissue and 2x longer life before yielding.<sup>1,2</sup>

**Accuracy/Consistency**—The needle tip’s trajectory now aims toward the top trap door of the Scorpion suture passer no matter how thick the tissue, resulting in consistent passes/captures.

The included MegaLoader suture loader is a large nylon loop with ends joined together like a large blunt needle. It brings ultimate simplicity when loading suture into implant eyelets and instruments like suture cutters, knot pushers, tensioners, etc.



**References**

1. Arthrex, Inc. Data on file (TP-02380-03). Naples, FL; 2023.
2. Arthrex, Inc. Data on file (TP-02380-04). Naples, FL; 2023.

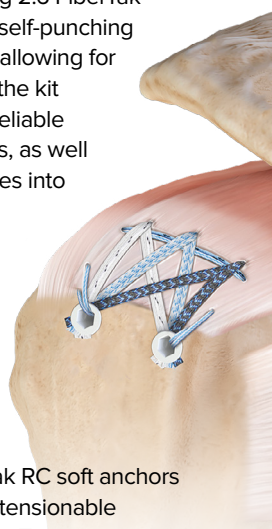
## New FiberTak® SpeedBridge™ Implant System

The new FiberTak SpeedBridge implant system features the latest next-generation rotator cuff repair technology in a single kit to provide ultimate procedural convenience and efficiency. The system contains all the implants required to perform a FiberTak SpeedBridge repair using 2.6 FiberTak RC soft anchors for medial-row fixation and self-punching SwiveLock® anchors for lateral-row fixation, allowing for a fully self-punching construct. Additionally, the kit includes the new HD Scorpion™ needle for reliable passage of the joined FiberTape® suture tails, as well as the MegaLoader to simplify loading sutures into anchor eyelets and cutters.

**Implant System Contents**

- Three 2.6 FiberTak RC soft anchors
- Two self-punching Knotless SwiveLock anchors
- HD Scorpion needle
- MegaLoader suture loader

Implant systems are offered with 2.6 FiberTak RC soft anchors that include either a sliding SutureTape or a tensionable knotless mechanism alongside the fixed FiberTape suture. Tensionable knotless technology allows for precise control of the tension being applied to the repair, such as when reducing a delaminated tear or completing a medial pulley.



# Shoulder Arthroplasty

## VIP™ Reamer: Precise Reaming of Glenoid

The VIP reamer set is used in tandem with the VIP targeter to intraoperatively transfer preplanned depth of ream to the patient’s anatomy. This will achieve planned backside seating while avoiding excess bone removal. This reusable, patient-specific instrumentation takes the guesswork out of glenoid preparation, creating a more reproducible procedure. The surgical flow is simply using the VIP pilot reamer and then the VIP secondary reamer that is designed for use with the chosen implant system and size. The VIP reamer set can be used with the Univers VaultLock® glenoid system and the Univers Revers™ Modular Glenoid System—both standard and augmented implant options.



## Now Available: Magnetic Clinic Poster for Patient Education

With this new interactive poster and custom procedure magnets, patients can visualize and better understand surgical treatment recommendations. This in-office poster has an adhesive backing for easy installation on smooth, clean surfaces (eg, back of the exam room door, wall, etc). Unique colors outline the anatomy and match the associated procedural magnets, which can be organized to align with your procedural mix. Convenient QR codes are shown on most magnets and guide patients to learn more about each procedure. A shoulder version is currently available and a knee version will be released at AAOS 2024. This collection of anatomy-specific posters and magnets will continue to be expanded. Contact your Arthrex Technology Consultant to order.



# Foot & Ankle

## New Lapidus Reduction Clamp for Hallux Valgus Correction

The Lapidus reduction clamp is designed to assist in achieving and holding reduction for Lapidus procedures by addressing both frontal plane rotation and the intermetatarsal angle (IMA). The simplicity of this singular instrument provides the flexibility to use your desired approach, preparation, and fixation methods while maintaining three-dimensional correction and proper anatomical positioning of the metatarsal.

### Features and Benefits

- **Rotating arm**—Allows for dialed-in rotational correction; locking feature maintains correction
- **Spin-down clamp**—Closes the IMA using 1.6 mm guidewires; threaded spin-down allows for dialed-in reduction that is held for the entire procedure
- **Guidewire sleeves**—Offers a percutaneous solution for reduction; an internal gripping feature maintains positioning of the clamp



## Support Patients and Your Practice With the Arthrex MIS Bunionectomy and BunionPain.com

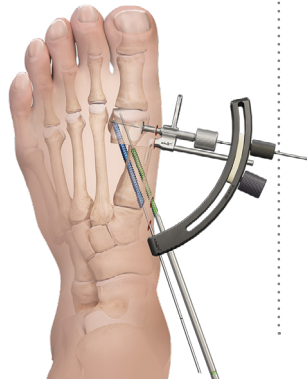
Designed specifically for MIS bunion correction, the Arthrex Minimally Invasive Bunionectomy is a comprehensive system of power, instruments, and implants that prioritizes the operative experience and optimal patient outcomes.

This bunion correction system incorporates various components including:

- A shifting device to achieve and maintain correction throughout the case
- A guide to assist in reproducible placement of guidewires for ideal screw placement
- Beveled FT screws with a 45° beveled head for a zero-profile construct

In our commitment to surgeon support and patient education, we also created BunionPain.com, a patient education website that illustrates the benefits of the Arthrex MIS Bunionectomy and features a Find a Doctor tool to help patients connect with surgeons in their region.

Contact your Technology Consultant to learn more about how the Arthrex Minimally Invasive Bunionectomy and BunionPain.com can support you and your patients.



# Orthobiologics

## Arthrex Calcium Sulfate BioBeads

The newest offering in our comprehensive portfolio of high-purity, fully synthetic bone repair solutions, Arthrex Calcium Sulfate BioBeads provide a high-purity calcium sulfate solution that is fully resorbed and replaced with bone during the repair process. Biocompatible and biodegradable Arthrex CS BioBeads are indicated for filling bony voids and can be used in infected sites.



### Features and Benefits

- Case-by-case flexibility with bead sizes of 3 mm, 4.5 mm, and 6 mm as well as a paste option
- Easy-to-use mixing and delivery kit
- Fast setting time
- Radiopaque for placement visibility

## BoneSync™ Calcium Phosphate Cement: 1 cc Size Offering

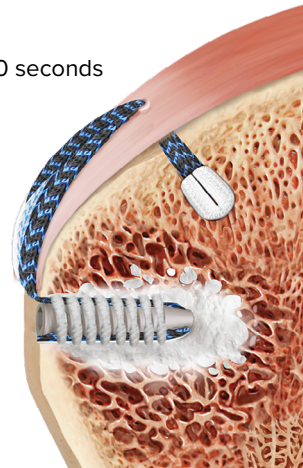
The new 1 cc size offering of BoneSync calcium phosphate cement offers ideal handling in preparation and delivery and can be used in a variety of procedures where a small amount of calcium phosphate cement is needed to support surrounding bone. Specifically, the 1 cc size is optimal for augmenting poor quality bone surrounding the lateral row anchors during a rotator cuff repair. BoneSync cement allows for an easy-to-use, fast-remodeling, settable, and drillable bone void filler.

### Features and Benefits

- Results in ready-to-use cement in <60 seconds
- Simple push-pull mixing mechanism
- Fast setting, allowing immediate supplemental strength<sup>1</sup>
- Resorbable calcium phosphate cement infused with collagen

### Reference

1. Arthrex, Inc. Data on file (APT-04232). Naples, FL; 2019.





## Why Range of Motion (ROM) is Important for the Virtual Implant Positioning™ (VIP™) System

**Brian C. Werner, MD**  
Charlottesville, VA

The forthcoming addition of an ROM tool (launching this summer\*) to the VIP software adds significant value for both patients and surgeons. A notable complement is the ability to assess how the component positioning and sizing affects function, one of the most important success outcomes patients measure.

At a higher level, surgeons have the potential to individualize the positioning of implants to restore the motions most important to patients. Each patient has unique priorities based on their desired postoperative activities and function—some may value external rotation more than internal while others may value forward elevation at the expense of rotational motion.

I plan to use the ROM tool to evaluate several variations of modular features on the plan—glenosphere diameter, baseplate lateralization, and humeral torsion among others—and, when considering the patient’s current and desired function, evaluate which changes will result in the best potential impingement-free ROM. While this tool alone is an exciting addition, several features unique to the VIP system will make it very user friendly. Perhaps the most helpful will be the ability to compare multiple plans side by side to see how changes affect impingement-free ROM.

With this tool, there will likely be an even greater impact on research from the Shoulder Arthroplasty Research Committee (ShARC). First, we will seek to validate the tool clinically, and understand other variables that can assure the tool is as clinically relevant as possible. Second, we will work to better understand how individual variables that are currently challenging to study (eg, humeral torsion) affect ROM and how component and positioning changes can be optimized to improve ROM clinically.

\*Pending FDA clearance

## Humeral Planning in the Virtual Implant Positioning™ (VIP™) System

Arthrex is pleased to offer humeral planning within our VIP preoperative planning software. The next evolution of the VIP software allows surgeons to effectively template humeral components compatible with the selected glenoid implant.

In anatomic planning, Eclipse™ cage screw, trunnion, and head sizes can be selected for each patient and optimal coverage of the humeral resection can be visualized. Additionally, the newly released Apex OptiFit™ stem is also available for planning. A center of rotation check on the joint tab allows surgeons to replicate native humeral anatomy as closely as possible to properly tension the rotator cuff and avoid overstuffing the glenohumeral joint.



## Virtual Implant Positioning™

In reverse planning, Univers Revers™ and Revers Apex stems can be selected and sized appropriately for each patient along with the visualization and selection of suture cups compatible with the selected glenosphere to preserve bone in the proximal humerus.

A dynamic 3-dimensional manipulable bone model is available in both planning types to assess the fit and sizing of components in the native anatomy. With this addition to the VIP system, surgeons can now plan both the humeral and glenoid components with confidence.



# Feature Article



## DualCompression Tibiototalcaneal (TTC) Intramedullary Nail: A Design Surgeon's Perspective

Robert Gorsline, MD  
Columbus, OH

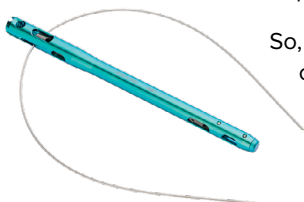
Severe foot and ankle deformities are complex and challenging cases in which surgeons must toe the line of correcting the deformity while maintaining or improving functional usage of the affected limb. Various disease states can contribute to the formation of such anomalies, leading to diverse clinical presentations that require a tailored approach to treatment. TTC fusion is an approach that can produce excellent results in the appropriate patients but is limited by long recovery times and the potential for complications due to nail failure. The highly anticipated DualCompression Hindfoot Fusion Nail Implant System offers potentially shortened times to weightbearing, improved long-term viability through its precision engineering, and sustained compression through nitinol technology.

A stainless-steel cable and compression device applies simultaneous axial compression on both joints through the center axis of the nail, while its superelastic nitinol inner core provides up to 10 mm of intraoperative and sustained dynamic compression across both joints.<sup>1</sup> This allows a response unique to each patient's healing environment and an active response to bone resorption or joint settling.

This system is intended to facilitate tibiototalcaneal arthrodesis to treat severe foot and ankle deformities, arthritis, instability, and skeletal defects after tumor resection, including neuro-osteoarthropathy (Charcot's foot), avascular necrosis of the talus, failed joint replacement, failed ankle fusion, distal tibia fracture nonunions, osteoarthritis, pseudoarthrosis, and rheumatoid arthritis. Implantation should feel as familiar as with a TTC nail but offers a unique mechanism and degree of internal compression. Good compression leads to stability and long-term viability of the construct for a lasting treatment outcome.

### What limitations have you observed with TTC nails currently on the market?

It's the minimal compression. Few nails on the market have internal compression systems and they only provide very limited compression. I've used the Integra™ PANTA® nail. It has inherent flaws, which led me to design the cable system in the DualCompression hindfoot nail.



So, the most significant answer is compression, in what's limited. The DualCompression hindfoot nail solves this limitation very well.

### Why would you choose to use the DualCompression hindfoot nail over other products on the market?

Compression over time is a very interesting concept. This is what will create inherent stability. We know that from lagging fibula fractures. The more compression you can get, and the longer it can last, the more you get incredible stability of the construct. The most notable advantage of the nail is significantly more compression at the start and dynamic compression over time, which is very limited out there in the marketplace.

### What are your top three tips and pearls for a successful case and outcome?

- **Deformity correction**—If you are not getting the deformity corrected, you are not doing it right. That has a lot of challenges there, depending on the scenario.
- **Addressing bone loss**—Knowing what you will use to fill a void, whether it is a metal cage or some form of allograft product, it needs to be structural for bone loss.
- **Construct rigidity**—This is a system that achieves a really rigid construct and is vastly superior to other available products.

### Do you have any specific pearls that would be helpful for surgeons to know beforehand?

The important thing is to understand the internal mechanism. Once you know the internal mechanism, you understand why all the different slots are numbered the way they are, putting the cables in correctly, etc. All surgeons should familiarize themselves with this as they pursue using the system.

Also, trust your scrub tech to assemble the jig correctly. It is no longer than a 15-second process. It is pretty slick.

Outside of that, it is like any other nail, which is the beauty of it. Once you familiarize yourself with it, you are going to twist this handle and say to yourself, "Wow, what did it do? How is it that easy?"

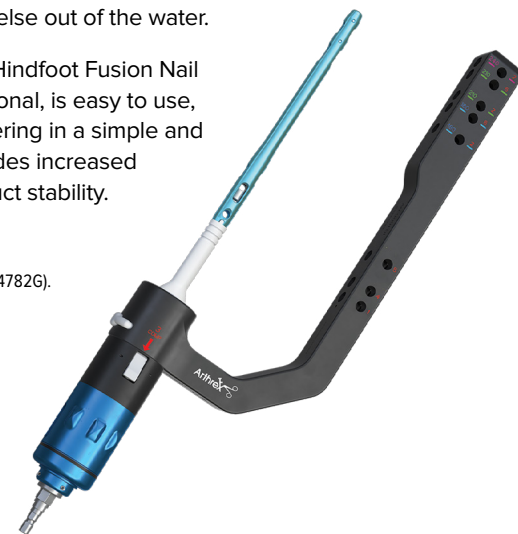
### Any final comments about the system as a whole?

The engineering within this nail is of epic proportions; it just blows everything else out of the water.

The DualCompression Hindfoot Fusion Nail Implant System is functional, is easy to use, offers precision engineering in a simple and elegant form, and provides increased compression for construct stability.

### Reference

1. Arthrex, Inc. Data on file (APT-04782G). Naples, FL; 2020.



# Feature Article



## Arthrex Launches New Patient Website and Patient Marketing Campaign: TheNanoExperience.com

Arthrex is excited to announce the launch of its new Nano arthroscopy patient website, TheNanoExperience.com.

As patients become more educated, they are actively seeking out Nano arthroscopy treatments across the country. TheNanoExperience.com is designed to provide patients with easy access to information about the many benefits and site-of-care options that are available with Nano technology.

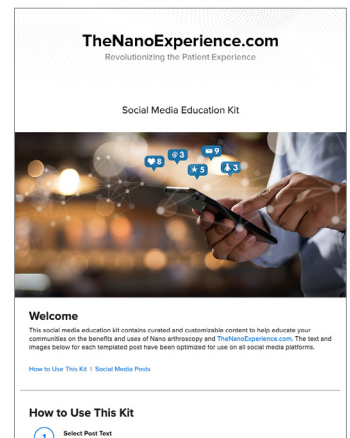
TheNanoExperience.com features a variety of pages designed to explain Nano arthroscopy to patients, answer their questions, and describe the joint-specific benefits of Nano arthroscopy and the procedural experience. With the Find a Doctor tool, patients can search for facilities and surgeons offering Nano arthroscopy techniques near them.

Additionally, a surgeon-focused page on Arthrex.com includes educational resources and a patient education resource kit to support your practice's efforts to communicate the benefits of Nano arthroscopy to patients. Reach out to your Arthrex representative to learn more about the Nano arthroscopy offerings and learn how to add your practice to Find a Doctor tool.

As worldwide adoption of Nano continues, these resources will be expanded and updated to support you in providing patients with the best care to help them return to work and activities.



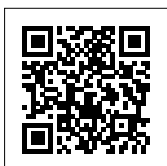
Nano Experience Microsite



Nano Experience Social Media Kit



Nano Experience Patient Brochure (pLB1-000471-en-US)



Scan to visit  
[TheNanoExperience.com](https://www.thenanoexperience.com)



# Pointers and Pearls



## Balancing Superior and Inferior All-Inside Meniscal Repair Using the FiberStitch™ 1.5 Implant

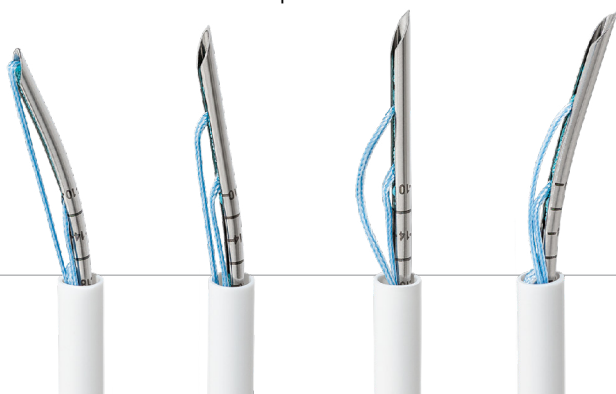
Sommer Hammoud, MD  
Philadelphia, PA

**In the past, inside-out meniscus repair has been considered the gold standard to address large bucket-handle meniscus tears because the sutures could be placed superiorly and inferiorly, creating a vertical mattress suture configuration. How do you mimic this suture configuration with the FiberStitch 1.5 all-suture, all-inside meniscal repair implant?**

To achieve that configuration with all-inside devices, the mobility of the meniscal tissue in the torn state must be considered because puncturing the meniscal side of the tear can be difficult with all-inside devices.

Starting on the femoral side of the tear, I use the 12° up-curved FiberStitch 1.5 implant to place the capsular-sided stitch first. The needle can be rotated to move the tip away from the neurovascular structures in the midline and then to puncture the meniscal tissue perpendicularly to avoid propagating a tear. Remember that once this first stitch is tensioned down, it will start to evert the tissue, closing the femoral side of the tear. In this case, placing multiple vertical mattress sutures before tensioning is useful. I typically start peripherally and move centrally, placing 3 FiberStitch implants sequentially and tensioning them after all implants have been placed. If the tissue is too mobile, as can be the case in a large bucket-handle tear, tensioning the first suture helps stabilize the tissue for the subsequent FiberStitch implant.

After repairing the femoral side of the tear, I move to the tibial side as this side of the meniscal tissue is now everted and stabilized and much easier to puncture with the reverse-curved FiberStitch implant. I repeat the same technique and place all 3 sutures first and then tension them down after all have been placed. This may be more important here than on the femoral side as tensioning a tibial-sided suture will really “clamp down” the tissue and make placing subsequent stitches with excellent visualization difficult. I stagger the femoral- and tibial-sided sutures so they do not puncture the meniscal tissue at the same point, which may weaken the tissue and result in tear propagation. Each tear is different, however, and sometimes placing sutures one at a time, possibly alternating from femoral- to tibial-sided and tensioning as you go, allows for the best anatomic repair.



**It is common for large bucket-handle tears to occur in the medial meniscus, and access can be challenging in this compartment. Do you have any tips for accessing the joint space on the medial side?**

In many patients, the medial compartment of the knee can be tight, and accessing the posterior horn can prove difficult. It is important to gain access in such a way that allows you to perform an excellent meniscal repair without damaging the articular cartilage of the compartment with your instruments. Fenestrating the MCL is probably the most reliable way to achieve this in the medial compartment. Make sure whichever leg holder is used allows adequate valgus load on the knee to aid in access.

**Is this your technique for every case?**

I fenestrate the MCL in most cases of medial meniscus repair. If you correct an MCL injury at the same time, access is not a problem. I check for easy access to the posterior horn with my probe on both sides of the meniscus and repeat with the portal skid. If I have adequate access, then MCL fenestration is unnecessary.

**What is your method for fenestrating the MCL?**

Using a spinal needle, I locate the proximal MCL just distal to the medial femoral epicondyle with the knee in near full extension while maintaining a valgus force. Then I place the spinal needle through the skin and move the needle subcutaneously through the MCL repeatedly. As you create a valgus force and view the medial compartment with the arthroscope, you can feel the MCL give way and the medial compartment will open up to allow for easier access.

**How do you determine which FiberStitch 1.5 device is best for accessing a meniscus tear?**

The tighter the compartment, the greater the degree of curvature you'll need to get around the condyle without damaging the articular cartilage while accessing the meniscal and capsular sides of the tear for placing sutures.

Also, as you come around to the body and anterior horn of a meniscus tear, a greater degree of curvature gives you access to these points with an all-inside meniscal repair device. I use the reverse-curve FiberStitch implant to place tibial-sided meniscal repair sutures.

The great utility of the FiberStitch 1.5 implant for the knee preservation surgeon is the flexibility of the needle. You can bend the shaft and tip of the inserter for the perfect angle of attack. It's always important to remember that the flexibility of the device helps prevent articular cartilage injury at the time of repair. I never hesitate to create another portal for a better trajectory for implant placement or an improved viewing angle for repairing the more anterior portions of the tear.

# What's in My Bag?



## Using the Synergy<sup>Resection</sup> Shaver System for the AutoCart™ Procedure

Professor Gian Salzmänn, MD  
Zurich, Switzerland

### What was the catalyst that made you start performing the AutoCart procedure?

Before the “era” of the AutoCart procedure, I was a high-volume autologous chondrocyte implantation (ACI) user; however, ACI is a costly 2-stage procedure that calls for non-weight-bearing de-differentiated chondrocytes. These 2-stage ACI techniques did not allow me to treat my patients within the first surgery, specifically fresh trauma cases. That and existing early evidence convinced me to adopt the AutoCart cartilage repair surgical technique. Using the AutoCart technique, I can perform a single-stage chondrocyte-based cartilage repair procedure with a high biologic potential using weight-bearing and fully differentiated chondrocytes.

### What is your experience using the Synergy<sup>Resection</sup> shaver system for the AutoCart procedure?

The Synergy<sup>Resection</sup> shaver system is the perfect system of differentiated shaver designs to optimize the AutoCart procedure. I can easily set the system to different speeds and oscillation modes, which allows me to intraoperatively adapt to my desired tissue effect.

I start my cases with the 4.0 mm Torpedo™ shaver blade to inspect and clear out the joint. If there is a bony defect, I can then easily switch to the 4.0 mm bone cutter shaver blade to remove the defective/sclerotic bone. When it's time to collect healthy cartilage from the defect edge, I prefer a 3 mm Sabre shaver. The small shaver design will automatically dice the cartilage into very small particulate, which is necessary for subsequent transplantation.

### What pearls have you learned for harvesting cartilage particulate with shaver blades for the AutoCart procedure?

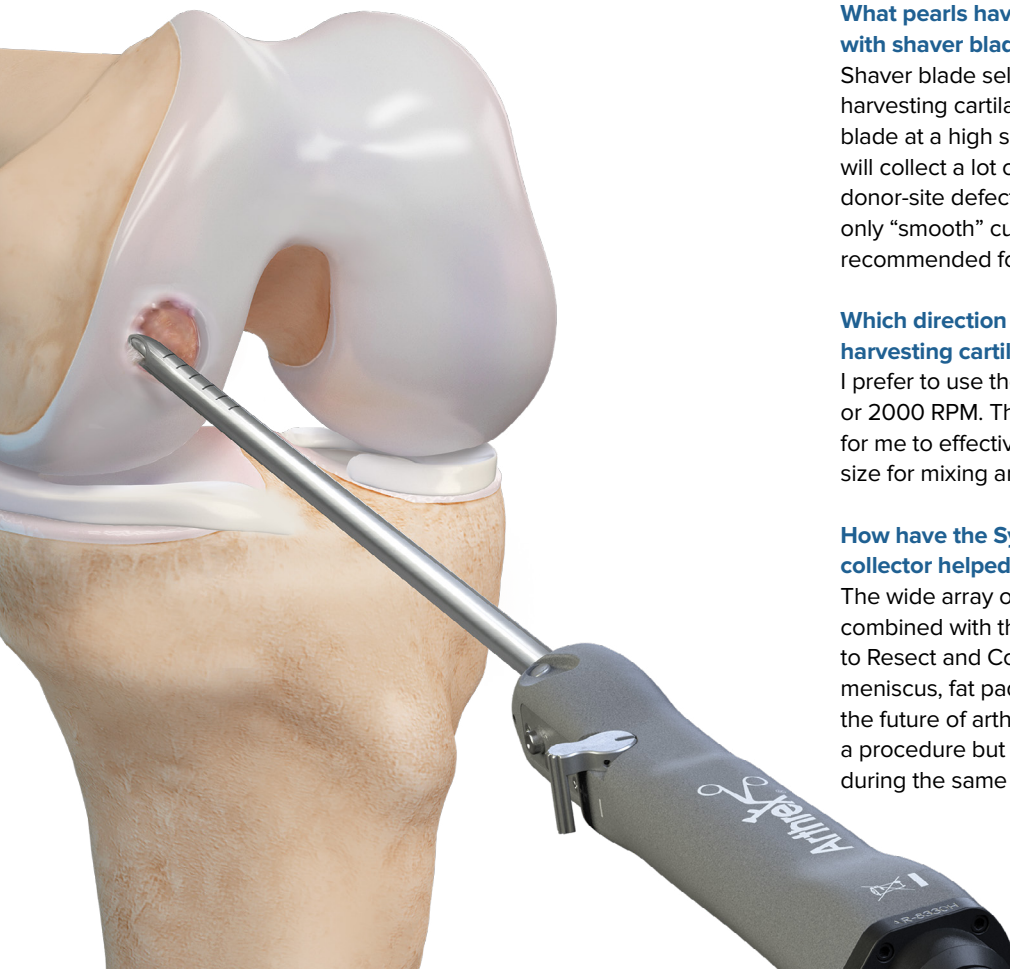
Shaver blade selection is important to keep in mind when harvesting cartilage. For example, if using a larger toothed shaver blade at a high speed or aggressive oscillation mode, the shaver will collect a lot of tissue very quickly, possibly causing a significant donor-site defect and cellular vitality might be affected. Therefore, only “smooth” cutting-window, soft-tissue shaver blades are recommended for cartilage debridement and harvesting.

### Which direction is best for running shaver blades when harvesting cartilage: reverse, forward, or oscillate? Why?

I prefer to use the system's Efficient oscillation mode at 1750 RPM or 2000 RPM. This speed and oscillation mode seems to work best for me to effectively collect cartilage at the appropriate particulate size for mixing and implantation.

### How have the Synergy<sup>Resection</sup> shaver system and GraftNet™ tissue collector helped your patients?

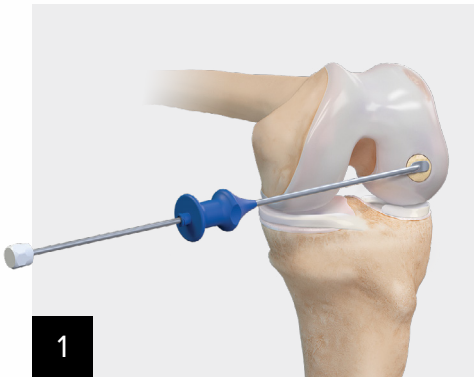
The wide array of shaver blades in the Synergy<sup>Resection</sup> system combined with the GraftNet autologous tissue collector allow me to Resect and Collect™ anything I want from the joint, including the meniscus, fat pad, cartilage, bone, and synovial tissue. I believe the future of arthroscopy is not only to take away tissue to perform a procedure but to collect specific tissue that can be reimplanted during the same surgery.



# IN THE Loop

## Creating an Autologous Sealant With the Thrombinator™ System

The Thrombinator system applies the principles of the clotting cascade to produce an autologous serum for use as a sealant with osteochondral grafts delivered during an AutoCart™ procedure. The system is designed for preparing autologous serum from peripheral blood, platelet-poor plasma (PPP), or platelet-rich plasma (PRP). The steps are as simple as activate, clot, and deliver.



1  
AutoCart grafts include autologous osteochondral particulate collected using the GraftNet™ device, BioCartilage® extracellular matrix, and PRP from the Arthrex ACP® double-syringe system. The Thrombinator system can be prepped during graft preparation so that sealant is ready at time of application.



2  
Add 0.1 mL calcium chloride and 4 mL autologous fluid into the "inject" port on the Thrombinator device and shake for 5 seconds. Place the device flat with the "withdraw" portal facing up.



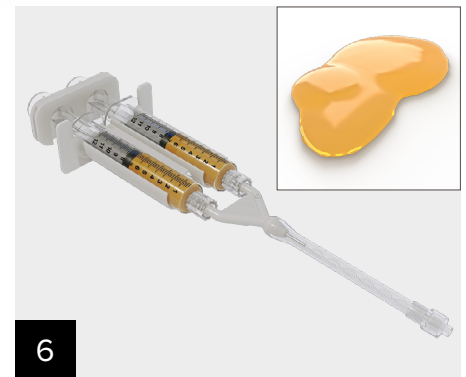
3  
After 15-20 minutes, break the developed clot by shaking the device, then add 0.2 mL calcium chloride and 8 mL autologous fluid. Shake the device and place back on a flat surface for 1-2 minutes.



4  
Break the clot by shaking the device and place back on a flat surface for 1-2 minutes. Break the clot a final time.



5  
Connect the filter to the "withdraw" port. Invert the device and withdraw the serum through the filter.



6  
Use a 1:1 applicator to mix and deliver the thrombin serum and a fibrinogen source (WB, PPP, or PRP) over the AutoCart graft. Within seconds, the clot will form over the graft.

**Note: The clot formation time will vary if noncoagulated blood is used.**



# Research Corner

## Shoulder Arthroplasty Research Committee (ShARC) Update

ShARC is a highly collaborative group of surgeons, researchers, and scientists who analyze long-term outcomes on surgeries performed within a patient registry. The committee's mission is to produce peer-reviewed publications that support the advancement of patient care, increase medical knowledge, and allow for data-driven advancement of shoulder arthroplasty.

Currently ShARC has:



61 Publications



2799 Patients Enrolled



20 Enrolling Sites



36 Surgeon Contributors



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