

Arthrex Presents:

# Breakthroughs in Trauma Innovation

OTA 2025



The Arthrex Trauma portfolio continues to evolve to provide surgeons with dynamic and innovative products for Helping Surgeons Treat Their Patients Better®. We offer breakthrough solutions across our market-leading ankle fracture line, innovative long bone nailing platform featuring the market's only left-threaded telescoping lag screw, minimally invasive soft-tissue fixation technologies, and a comprehensive Orthobiologics portfolio designed to enhance patient healing outcomes.

This year Arthrex Trauma is excited to showcase the new Variable Angle Proximal Humerus and Elbow Fracture Plating Systems alongside flagship innovations such as our trochanteric nail telescoping lag screw system. And, for the first time at OTA, Arthrex is excited to introduce the 3DAnatomy™ Surgical Skills Suite. Visit us at Exhibit #508 for a hands-on experience with leading Arthrex Trauma products and procedures.

**Michael Karnes**

Director, Product Management  
Foot & Ankle and Trauma



Foot & Ankle and Trauma Product Management Team

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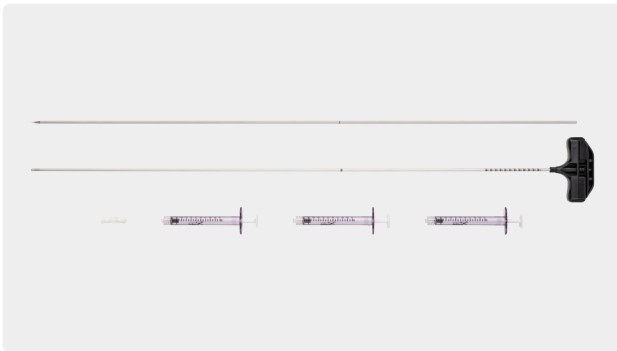


# Product Spotlight

## Arthrex Trochanteric Nail System Additions



The Arthrex Trochanteric Nail System is designed to improve outcomes and efficiencies within cephalomedullary fixation.<sup>1,2</sup> To support the ongoing goals of eliminating implant lateralization and enhancing fixation in intertrochanteric fractures, the system has been expanded with additional product innovations.



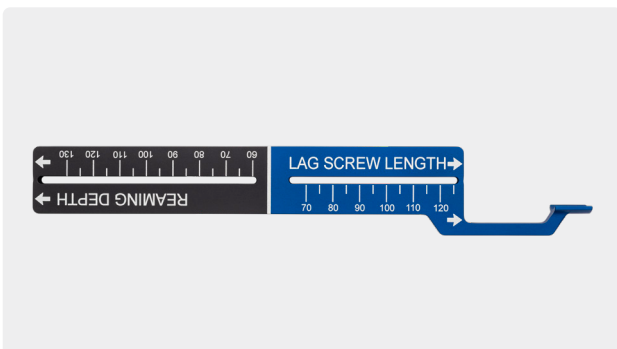
### Biologic Augmentation Options

The Arthrex Trochanteric Nail Augmentation System is optimal for revision cases or insufficient bone quality or quality. It was designed specifically to be used with the Arthrex Trochanteric Nail System to distribute bone graft material uniformly to the bone surrounding the lag screw threads.



### Anti-Rotation Bar

If the anti-rotation screw is selected to be added after lag screw placement, the anti-rotation bar provides provisional rotational stability of the femoral head and neck during lag screw insertion. It provides a provisional mechanism of anti-rotation while preventing the loss of reduction during lag screw insertion.



### Dual-Sided Lag Screw Depth Gauge

Streamlined instrumentation quickly provides two measurements: (1) the reaming depth to the tip of the guide pin, and (2) the appropriate lag screw length to ensure the locking ring is centered within the nail when the screw is advanced to the guide pin tip. Precise measurement helps ensure optimal placement of the telescoping lag screw.



# Case Review: A Biologic Augmentation to Hip Fractures

## Arthrex Trochanteric Nail Augmentation System



Charles Jordan, MD

In my practice, for patients with intertrochanteric hip fractures and poor-quality bone, augmentation with a bone void filler has proven to be a viable solution—leveraging innovative Arthrex technology alongside a biologic graft to promote bone remodeling, enhance construct stability, and specifically reduce the risk of cut-out. The new Arthrex Trochanteric Nail Augmentation System and seamlessly integrates within my trochanteric nail workflow.

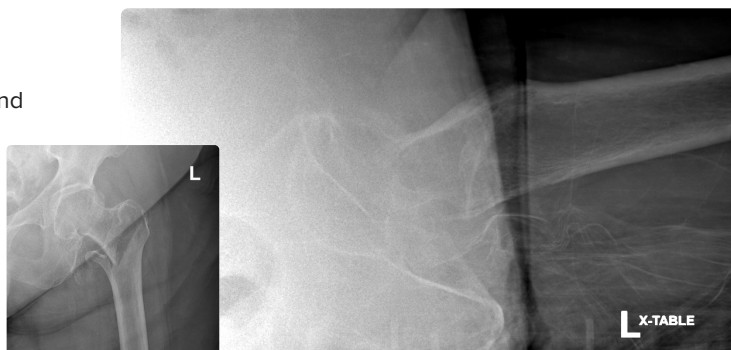
### Presentation

A 90-year-old female with a past medical history significant for osteoporosis presented after a mechanical fall, with a displaced comminuted intertrochanteric left hip fracture. After being medically optimized, she was taken to the operating room for surgical reduction and stabilization.



### Imaging

Radiographic studies demonstrated an unstable intertrochanteric pattern with varus displacement and calcar comminution.



### Surgical Technique

The patient was taken to the operating room, positioned on the fracture table, and fracture reduction was performed with axial traction and internal rotation.



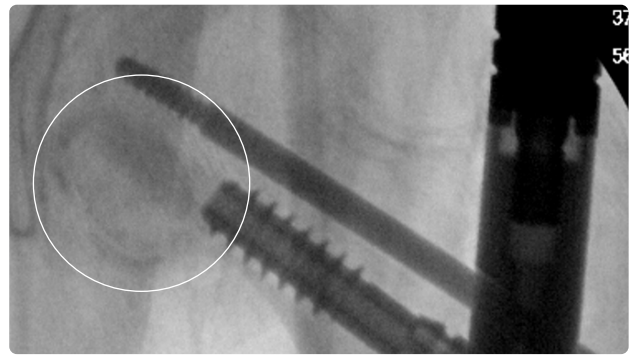
During lag screw insertion, the lag screw is left short of full insertion, and the delivery cannula is passed into the cancellous bone of the femoral head.

In this case, I chose to deliver Quickset™ calcium phosphate cement around the lag screw to strengthen screw purchase and reinforce the surrounding cancellous bone, aiming to reduce the risk of cut-out and related complications.

The lag screw is then advanced to its final position and locked into the nail. The cement interdigitates with the interstices of the cancellous bone

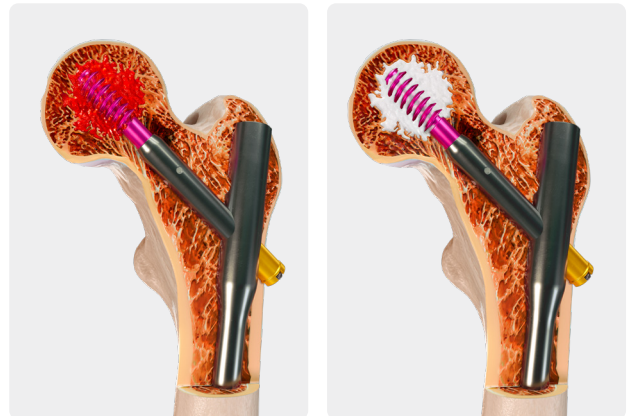
**Concluding Thoughts:** The use of a bone void filler, in this case Quickset calcium phosphate cement, or BoneSync reinforcement, improves implant anchorage and fills metaphyseal voids in poor-quality bone. With this patient selection criterion in mind, augmentation may increase construct stability and reduce the risk of mechanical failure.

Quickset is a trademark of Graftys, S.A.



### Arthrex Trochanteric Nail Augmentation System

Designed for seamless integration within the trochanteric nail case workflow and design features most compatible with the telescoping lag screw, this system allows for a uniform delivery of biologic graft options to the bone surrounding the lag screw. Arthrex offers a variety of bone void fillers to augment bone, including BoneSync™ and Quickset calcium phosphate cements as well as demineralized bone matrix with adjustable viscosity, like AlloSync™ Pure, to support bone remodeling and repair.



# What's New In My Bag?

## Arthrex Elbow Fracture Plating System



Erik Kubiak, MD



Andrea Attenasio, DO

The Arthrex Elbow Plating System offers a comprehensive solution for distal humerus and olecranon fractures. It includes both 90° and 180° plating options for the distal humerus, with extra-articular plate lengths extending up to 294 mm. The system is further complemented by dorsal olecranon and olecranon osteotomy plates. Combined with orthobiologics, soft-tissue anchors, cerclage, and more, this portfolio is designed to address even the most complex elbow trauma cases.

### What product features in the Arthrex Elbow Plating system stand out the most to you?

With a variety of plate options, the variable-pitch KreuLock™ screws aid in plate placement and compression. On the plating side, the extra-articular distal humerus plate line is low profile throughout and especially tapered as you get to the distal end of the plate. More on both of these in the later questions.

### Arthrex has the full elbow portfolio in terms of soft tissue, biologics, and plating. What does that mean to you as a physician?

Having all these solutions at the tip of your fingers with just one representative enhances case workflow and patient care. The Arthrex representative is different because they are exposed to a variety of products and specialties. For the orthopedic traumatologist, dealing with the terrible triads leads to needing efficient solutions beyond plates alone. We are putting anchors in the humerus to reinforce the LCL and incorporating the latest technology, like FiberTak® anchors and *Internal/Brace*™ ligament augmentation repair.

### The Arthrex plating system uses KreuLock locking compression screws. What has been your experience with the screws and what value do you attribute to their use around the elbow?

KreuLock screws have been great for periarticular and intra-articular distal humerus fractures. You can see the KreuLock screws bring the plate down to the bone and the extra compression that provides versus a traditional locking screw, which engages the plate and stops. It also saves you from either burning a locking hole with a cortical screw or the extra step of removing the cortical screw and replacing it with a locker.

A recent study by Koroneos et al found that KreuLock screws delivered five times greater force between the plate and the bone compared to a normal locking screw.<sup>1</sup> It also showed that intercortical compression actually exists. For me, replacing the cortical screw with a locking screw is fine, in theory, if you're sure you can put the locking screw in the same place. But oftentimes, you only get one good pass because of all the wire and screw traffic, and then you start taking away bone and losing purchase.

With some of these distal fractures, where you have limited real estate or with some of the elderly patients with osteoporotic bone, that's tough to maintain and things can fall apart. So, it's nice to achieve your reduction, place a single screw, and have that provide definitive fixation with compression all around.



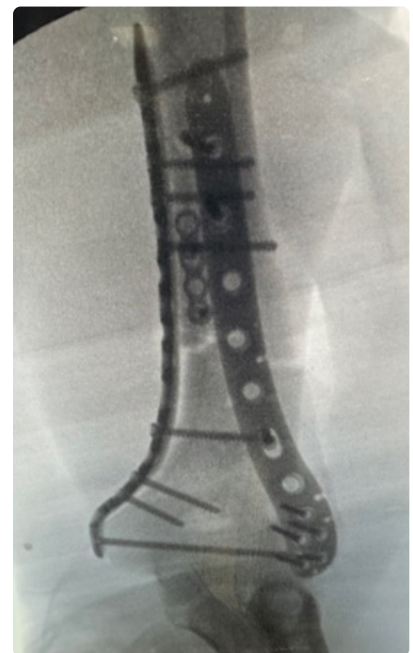
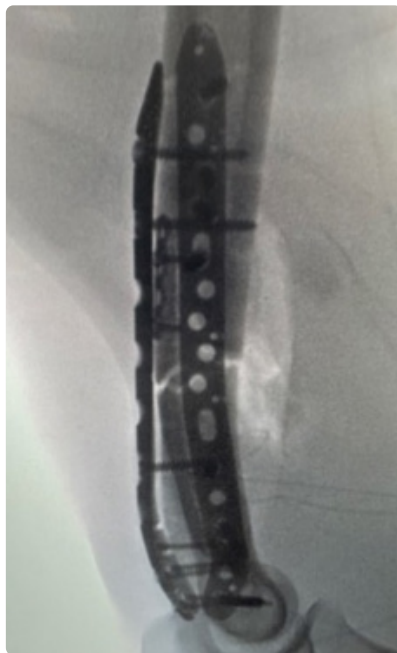
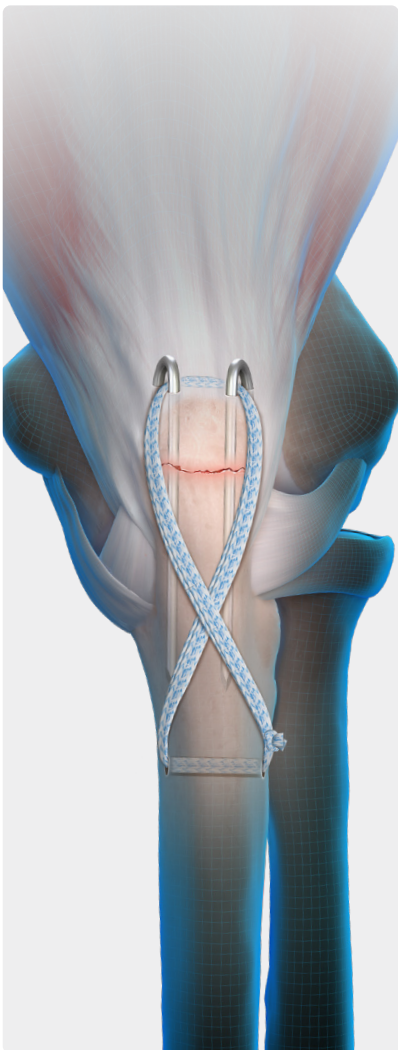
The *Internal/Brace* surgical technique is intended only to augment the primary repair/reconstruction by expanding the area of tissue approximation during the healing period and is not intended as a replacement for the native ligament. The *Internal/Brace* technique is for use during soft tissue-to-bone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

**Let's talk about the evolution of tension bands and how you have used FiberTape® cerclage in your practice.**

If you look critically at metal tension bands, the issue was always the crimp in the wire. Additionally, you can't dial the tension in. When you are using the metal wire, you are always thinking, "is another half turn the right amount? Or will that break it?"

Conversely, FiberTape cerclage allows you to tension it right and you can see the compression across the fracture as you dial it in with the tensioner. Obviously, not having a metal knot is so important for reducing the number of removals for these, as patients can be knot-sensitive.

Looking at what we did in the past and what we are doing now, what we haven't seen are failures like we saw with plates, where the olecranon piece pulls out, or with wire tension bands. And for FiberTape cerclage, we can tuck the knot back through the hole to hide the knot. So, for us, that translates into way less hardware removal than everything we did previously.



**What do you like about the Arthrex extra-articular plate?**

Since they first came out, I have used extra-articular plates, and now these have evolved with the recently launched Arthrex system. The Arthrex plate is more anatomic and slimmer up the shaft. With what I was using before, both the shaft and, especially, the distal portion just never fit. I would have to tell my residents to just put the plate on and use locking screws for fixation, and not pull the bone to the plate because it was so far off.

The nice thing about the Arthrex plate being a 3.5 plate is that we can do dual plating, and that's something that we are doing more often throughout the body. There's plenty of space for adjuvant fixation.

**Do you like using the tab fixation in some of the plating options?**

I love that you can in situ bend them—it's easy. Even if you don't need them, it's also easy to cut off completely.

**Reference**

1. Koroneos ZA, Alwine S, Tortora P, et al. Bicortical compression and construct stability with variable pitch locking screws in cadaveric specimens. *J Orthop Trauma*. 2025;39(3):153. doi:10.1097/BOT.0000000000002948

# New Literature Highlight

## KreuLock™ Locking Compression Screws

### Bicortical compression and construct stability with variable pitch locking screws in cadaveric specimens.

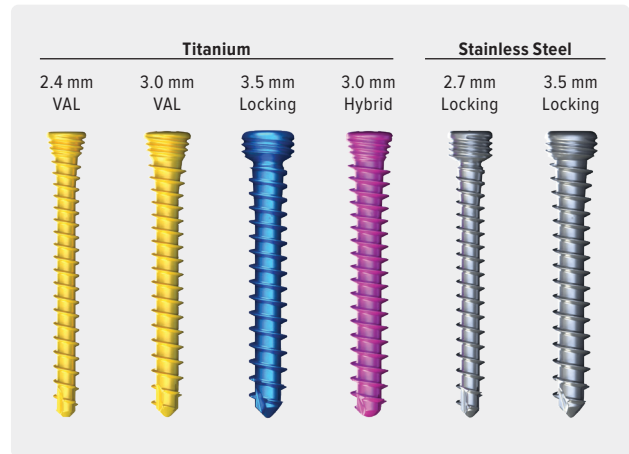
Koroneos ZA, Alwine S, Tortora P, et al. *J Orthop Trauma*. 2024;38(10):e339-e346. doi:10.1097/BOT.0000000000002869

A recent article in the *Journal of Orthopedic Trauma (JOT)*, was the first peer-reviewed publication to highlight the benefits of KreuLock locking compression screws.

When compared to standard locking screws:

- > Increased interfragmentary compression
- > Increased plate-to-bone compression
- > Comparable construct stiffness
- > Comparable axial and angular stability

For intra-articular fractures, KreuLock locking compression screws provide a unique combination of interfragmentary compression within a fixed-angle, locked plating construct.



Learn more about  
KreuLock Locking  
Compression Screws

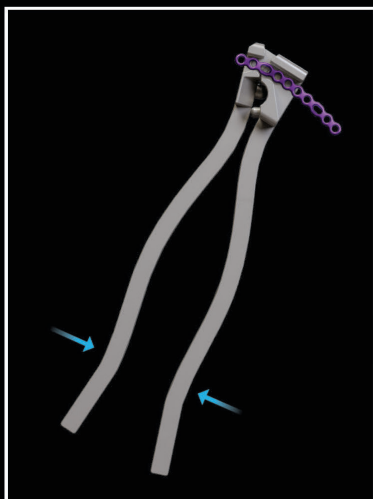
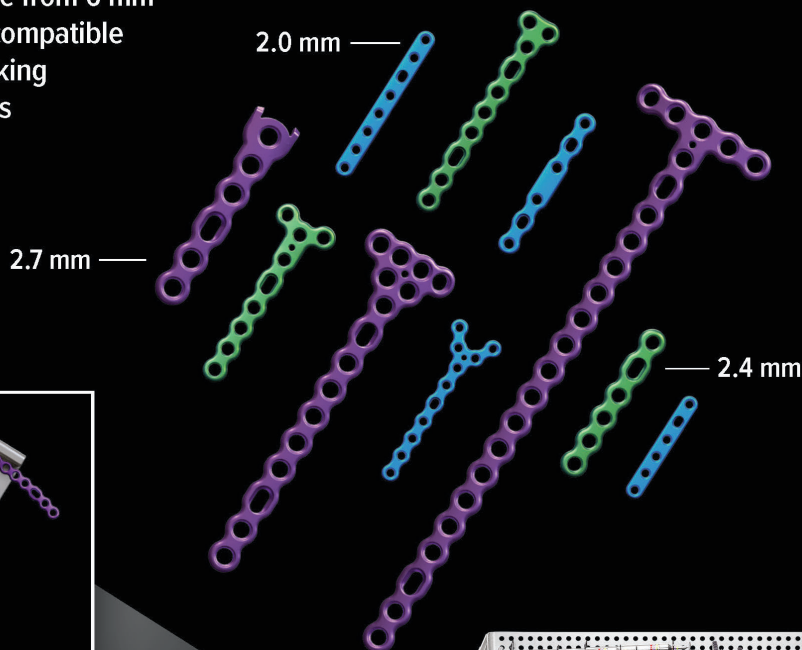
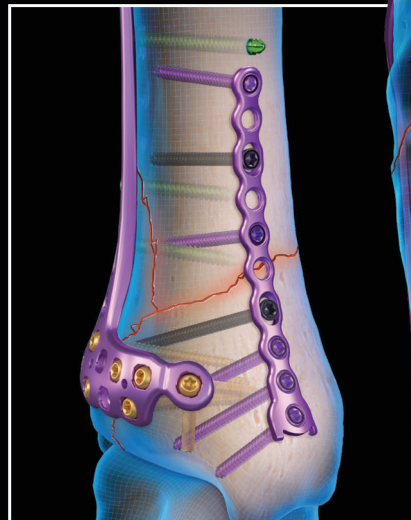


# Arthrex Mini Fragment System

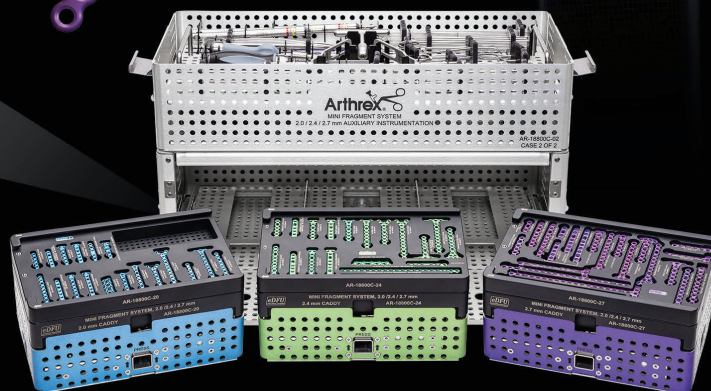
*Aiding in the reduction and fixation of small and long bone trauma*

The Mini Fragment System offers screw and plate options in 2.0 mm, 2.4 mm, and 2.7 mm sizes.

- 60 different plate sizes and styles fit a multitude of trauma needs
- Screw lengths range from 6 mm to 80 mm and are compatible with KreuzLock™ locking compression screws



**Comprehensive Bending and Cutting Options**



**Mini Fragment Tray**



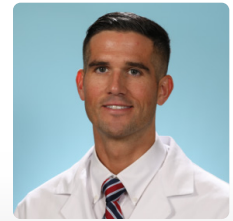
**Learn more about the Mini Fragment System**



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# What's in My Bag?

## Arthrex Trauma Mini Fragment System



Mitchel Obey, MD

### Can you describe the evolution of mini frag fixation and how you've seen it change over the course of your career?

Throughout my training, I've seen a steady rise in the indications and use of mini fragment fixation. Over the past two years in practice, it has become my implant of choice in more than half of the injuries I treat. For fractures involving the ankle, clavicle, elbow, and scapula, mini fragment systems now serve as a common fixation method. I strongly believe in addressing all points of instability, and this system has enabled me to do so effectively. As my practice has evolved, I've continued to find new and innovative ways to incorporate mini fragment fixation into constructs for a broader range of injuries.

### What role does the Mini Fragment System have in your practice?

The Mini Fragment System has evolved to be a primary workhorse in my practice, as multiple upper and lower extremity injuries are now treated entirely with mini fragment fixation.

### How has the Arthrex system addressed your needs from a system and implant standpoint?

The Arthrex Mini Fragment System is extremely user-friendly for both surgeons and operating room staff. It provides a wide selection of plate geometries and lengths with varying degrees of flexibility that is unmatched by competing systems. When using this system, I can always find the perfect plate for the occasion.

### What injury pattern immediately points you in the direction of mini frag plating?

The Mini Fragment system can be used to stabilize any injury of the proximal ulna, including olecranon, trans-olecranon, and Monteggia fracture dislocations. In the case example shown below, a professional female cyclist sustained an open trans-olecranon fracture with bone loss and articular impaction after crashing onto her right shoulder during a race. The injury was approached through a direct posterior incision. The articular surface impaction was disimpacted and stabilized using 1.1 mm fully threaded wires, followed by orthogonal mini fragment fixation for the remaining components. The patient was allowed to begin range of motion immediately postoperatively and has returned to racing.

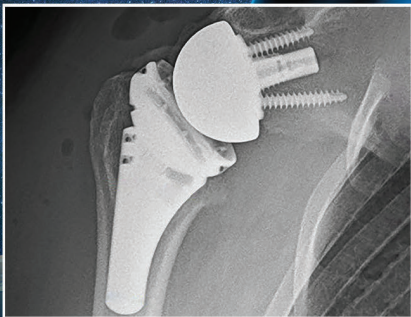
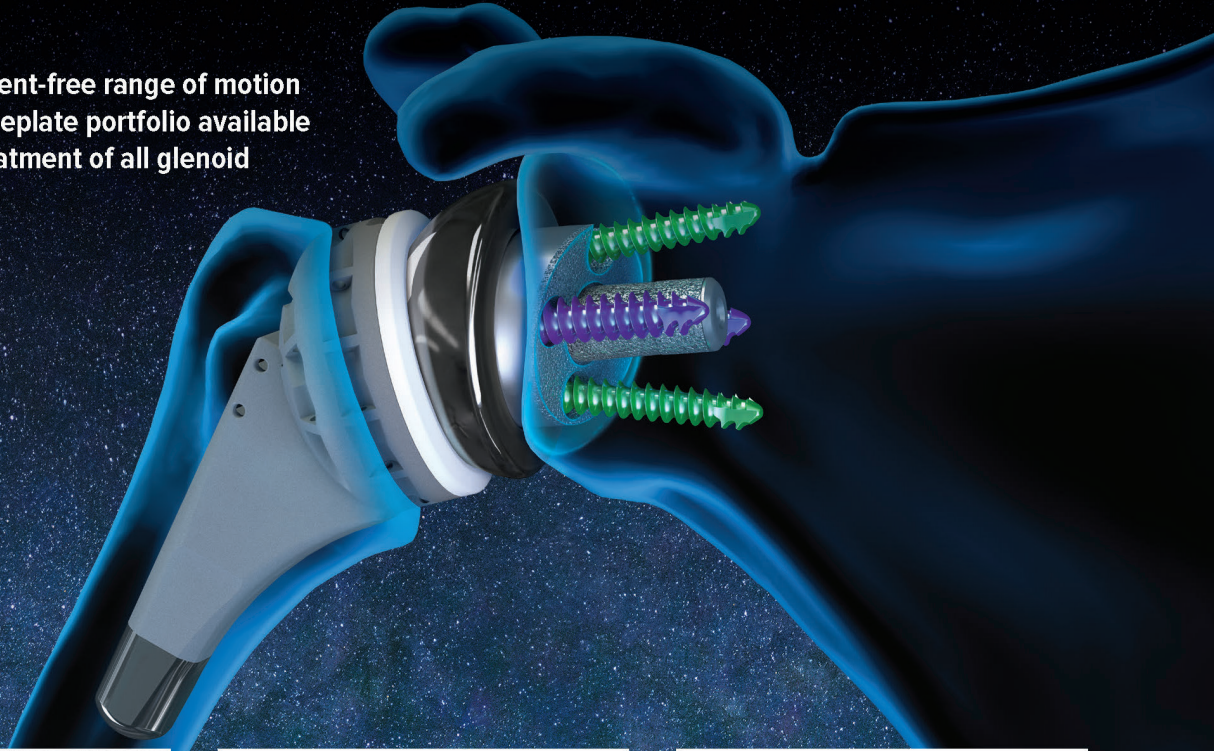




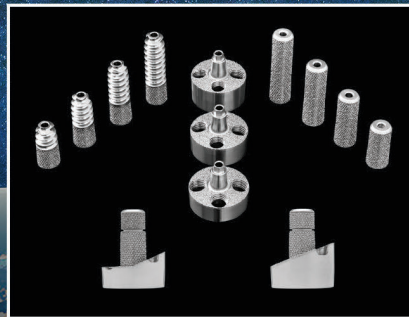
# Univers Revers™ Total Shoulder System

Celebrating Over 10 Years of Positive Outcomes

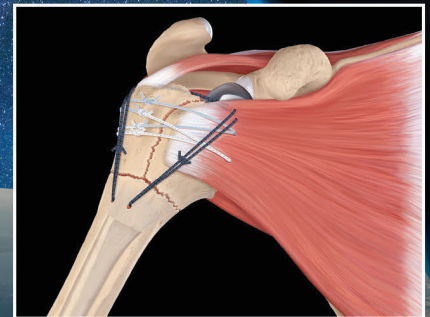
Optimize impingement-free range of motion with the largest baseplate portfolio available for the effective treatment of all glenoid wear patterns<sup>1,2</sup>



Inlay 135° neck-shaft angle reduces scapular notching<sup>1,2</sup>



Screw or post fixation, full- or half-wedge augments, and options for lateralization up to 8 mm



Reproducible reduction with FxBridge™ tuberosity repair system and 135° neck-shaft angle for optimal tuberosity healing<sup>3</sup>

Learn more about the  
Univers Revers total  
shoulder system



#### References

1. Erickson BJ, et al. *J Shoulder Elbow Surg.* 2015;24(6):988-993. doi:10.1016/j.jse.2015.01.001 2. Gobeze R, et al. *J Shoulder Elbow Surg.* 2019;28(5):813-818. doi:10.1016/j.jse.2018.11.064 3. Schmalzl J, et al. *BMC Musculoskelet Disord.* 2020;21(1):35. doi:10.1186/s12891-020-3060-8

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# Tips and Pearls

## Reverse Shoulder Arthroplasty for Fracture



Jonah Hebert-Davies, MD

**The evolution of reverse shoulder arthroplasty for treating proximal humerus fractures has accelerated over the past decade. Multiple recent studies have shown improved outcomes compared to open reduction internal fixation (ORIF), and incorporating these findings into everyday practice helps us give our patients the best possible results.**

### Earlier Decision-Making

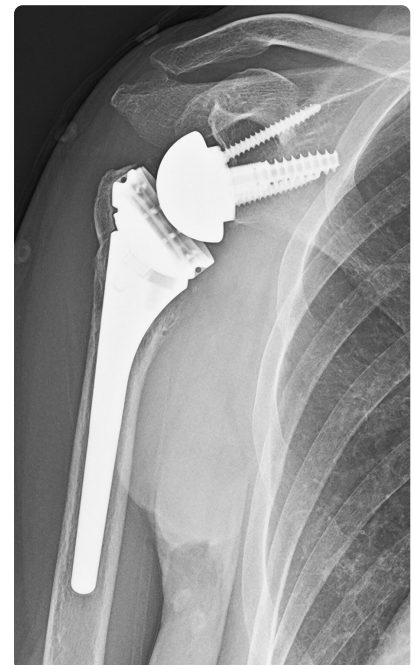
A key change is deciding on arthroplasty sooner. When discussing nonoperative management versus surgery, stress the importance of timing: [“in my practice, I aim to operate within 4 weeks of the fracture in efforts to lower complication rates and improve outcomes”](#)

### Implant Selection

Surgeons have increasingly shifted from the traditional Grammont-style prosthesis to a 135° anatomic stem. While the Univers Revers™ system accommodates either option, [several studies now demonstrate superior implant survivorship and functional results with the 135° design.](#)

### Tuberosity Fixation

To optimize motion and patient-reported scores, the standard of care for 3- and 4-part fractures should include fixation of all tuberosities. The FxBridge™ kit has streamlined this step in my practice, making the procedure simpler, reproducible, and efficient. Over the past 10 years, it has been the single greatest contributor to surgical efficiency for me. The robust fixation of the system also lets my patients begin range-of-motion exercises earlier, leading to high tuberosity-healing rates with minimal stiffness.



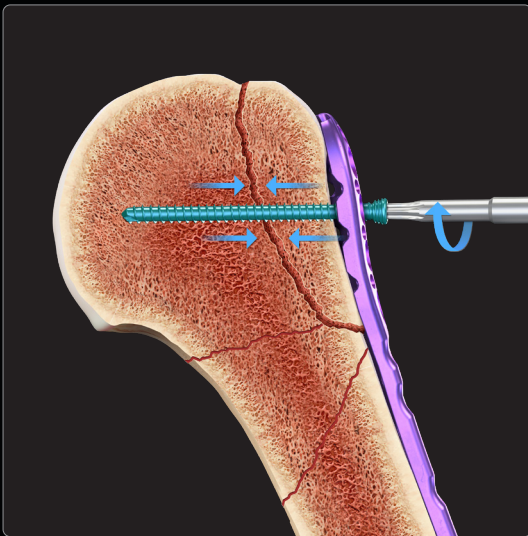
Univers Revers™  
System for Fracture  
Scientific Update

**NEW**

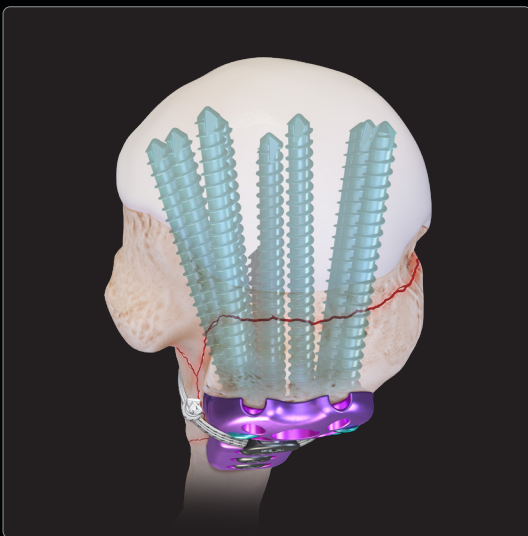
# Arthrex Proximal Humeral Plating System

## Lateral Humeral Plate

Limited contact with variable-angle locking and compression screw technology to provide a streamlined, reproducible reconstruction of proximal humerus fractures.



Featuring reinforced, patented KreuLock Locking Compression screws



Low profile plate with divergent screw pattern

3-17 hole  
(90.5 mm – 309 mm)  
length options

3.5 mm thread-in  
Fibertape Cerclage  
button



# Case Review

## Arthrex FiberTape™ Cerclage in My Practice



John David Adams, MD

**FiberTape cerclage is a nonmetallic alternative to cables and wires traditionally used for fracture management during trauma and reconstruction procedures. Its high-strength<sup>1-3</sup>, all-suture design, and biomechanical properties make FiberTape cerclage an ideal adjunct for stabilization and fixation for various fracture management cases.**

### Presentation

An 81-year-old female was referred for left hip pain 9 months after intertrochanteric hip fracture fixation.

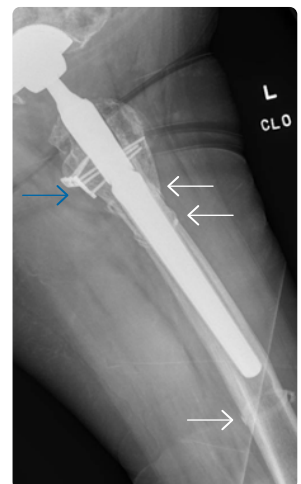
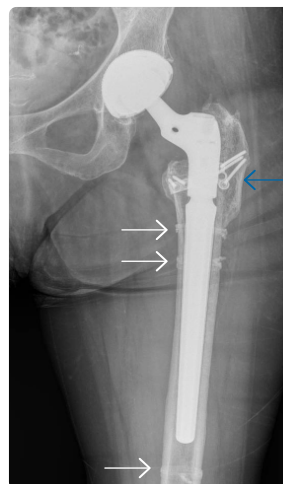
### Decision-Making

The decision was made to proceed with conversion to total hip arthroplasty with cerclage fixation.

### Surgical Technique: Cerclage Fixation

With concerns about propagating fracture lines during femoral stem preparation and implantation, the radio-opaque FiberTape cerclage (yellow arrows) aided in stabilization during stem preparation.

Additionally, the greater trochanter's potential instability needed to be addressed. The Arthrex 2.7 mm Mini Fragment System (purple arrows) provided a dynamic option for provisional fixation.



6 Months Post-op

### References

1. Arthrex, Inc. Data on file (APT 3197). Naples, FL; 2017.
2. Arthrex, Inc. Data on file (APT 04426). Naples, FL; 2019.
3. Arthrex, Inc. Data on file (APT 4577). Naples FL; 2020.

### Presentation

A 91-year-old female presented with reverse-oblique intertrochanteric hip fracture after a fall from standing.

### Decision-Making

The decision was made to fixate using an intramedullary nail from the Arthrex Trochanteric Nail System.

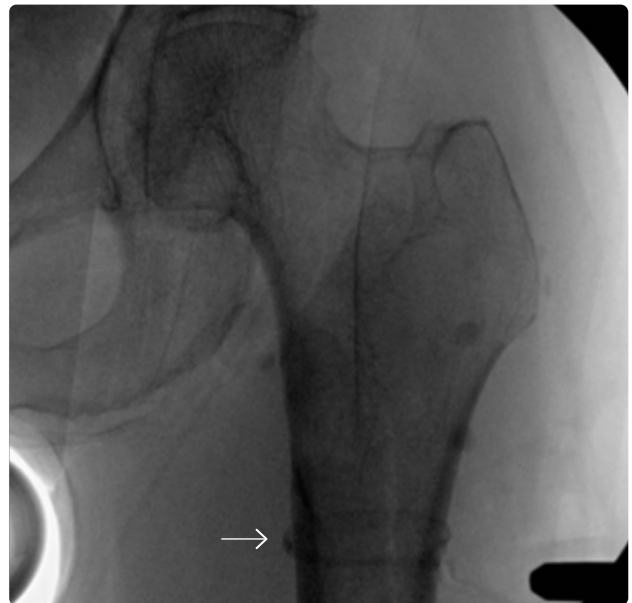
### Technique Insights

In a fracture pattern such as this, it is key to avoid varus and medial translation of the femoral shaft. Using a similar incision as for lag screw insertion, FiberTape cerclage was used maintain reduction before and during nail placement (white arrow).

The nail was placed with reduction maintained by FiberTape cerclage

### Why consider Arthrex FiberTape Cerclage?

1. Similar strength to 1.6 mm cable<sup>1</sup>
2. Low profile: facilitates placement of other implants if needed
3. Minimally invasive: can be passed and tensioned through smaller incisions than traditional cables or wires
4. Less symptomatic for patients: no sharp edges
5. Radio-opaque and radiolucent options

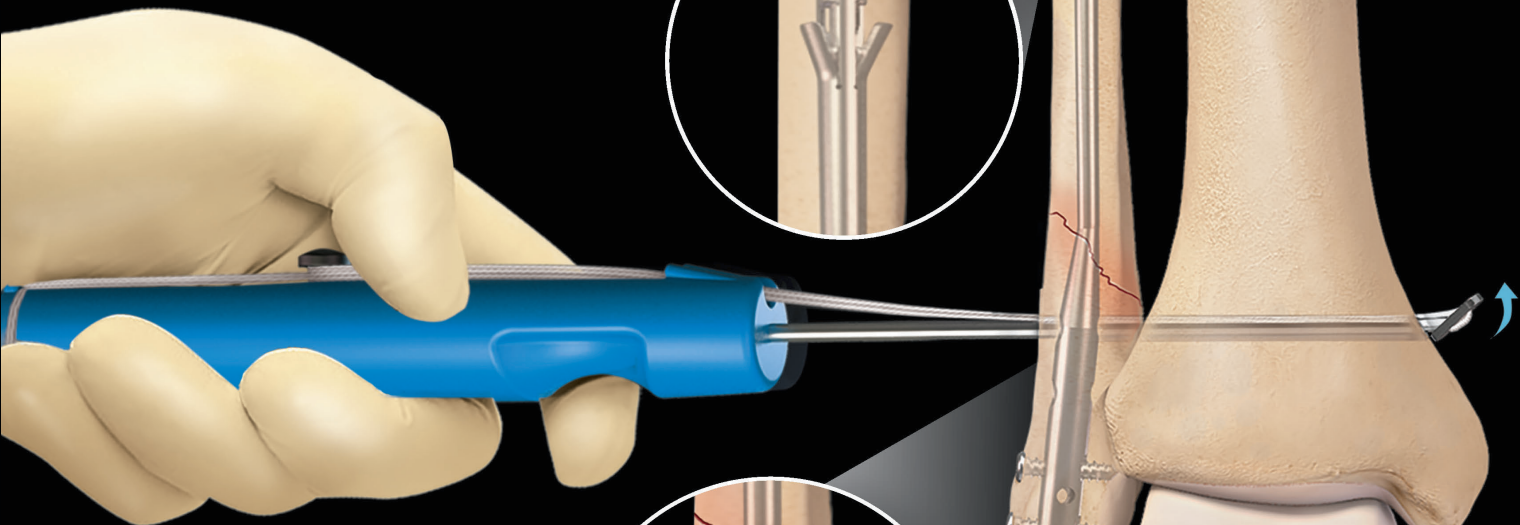


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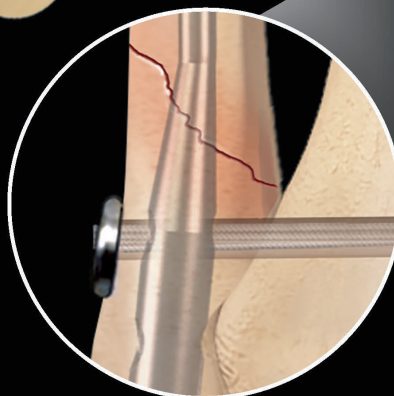
1. Arthrex, Inc. LA1-000129-en-US\_A. Naples, FL; 2020.

# FibuLock<sup>®</sup> Fibular Nail

*Lower complication rates and fewer implant removals<sup>1</sup>*



- Innovative proximal talon fixation
- Compatible with the TightRope<sup>®</sup> XP implant
- Minimally invasive



**The clinically proven solution for ankle injuries<sup>1</sup>**



*Learn more about the FibuLock Fibular Nail*

#### Reference

1. Hodgkins CW, Fleites J. Fibula nailing: a retrospective review of 110 consecutive FibuLock nails. *J Orthop Trauma*. 2022;36(7):366-369. doi:10.1097/BOT.0000000000002329



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# Case Review: Arthrex Minimally Invasive Nailing Solutions

## Arthrex Tibial Nail and FibuLock® Nail



Alexander M. Crespo, MD

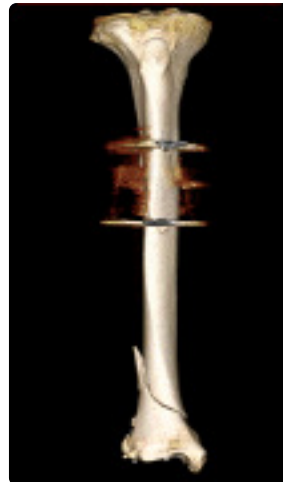
### Presentation

A 51-year-old male sustained a type 3A open distal tibia fracture with a 12 cm transverse medial wound and periosteal stripping. Initial treatment was temporization with debridement and irrigation, and placement of an external fixator.



### Imaging

CT scan demonstrated the distal nature of this injury, with the dominant fracture line measuring approximately 23 mm from the physal scar. A 3D reconstruction shows the location of the injury, as well as comminution of the posterior column and the presence of a posterior malleolar fracture.



### Reduction

Restoration of length, alignment, and rotation was achieved through clamp-assisted reduction via the traumatic medial open wound. A 2.7 mm Arthrex mini-fragment screw was placed as a positional screw to maintain reduction of the tibial shaft component. Additionally, 4.0 mm Arthrex cannulated screws were used to stabilize the posterior malleolar fragment and prevent displacement.

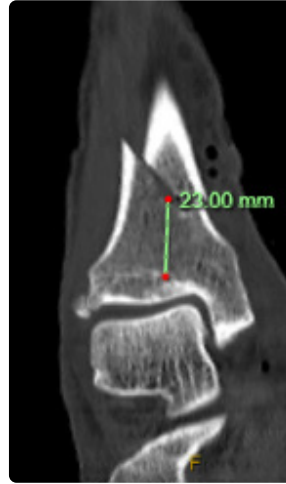


### Decision-Making

I elected to use an intramedullary device for this case, due to improved biomechanics, avoidance of a surface-bearing implant, and to minimize any further soft-tissue damage.

### Surgical Technique

The Arthrex tibial nail was selected for this case due to its anatomical design, which permits the placement of 3 fixed-angle distal interlocking bolts within 21 mm of the nail tip. Given that the distal fracture extended to 23 mm from the physal scar, this implant allowed for secure fixation with 3 points of purchase in the distal fragment.



**Given the high-energy mechanism of injury, internal fixation of the fibula was performed using the FibuLock nail. This implant was chosen for its ability to deliver statically locked, intramedullary stabilization while preserving the surrounding soft-tissue envelope, making it an ideal solution in this complex trauma setting.**



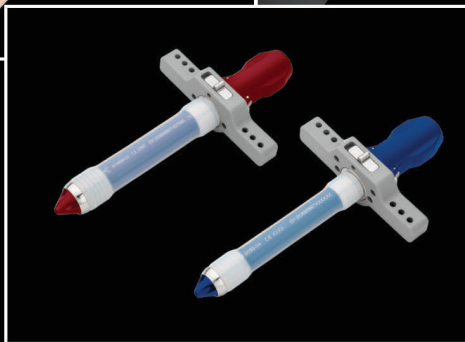
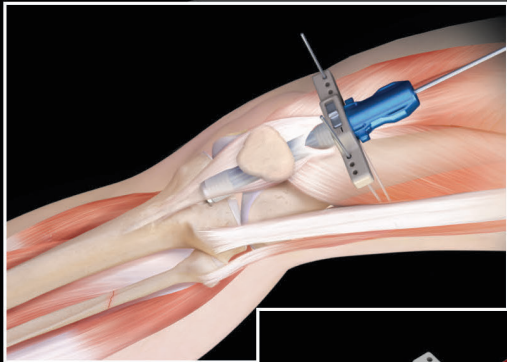


# Tibial Nail System

Advanced instrumentation for optimal distal fixation



Statically locked threaded screw holes and 1 slot for fracture dynamization

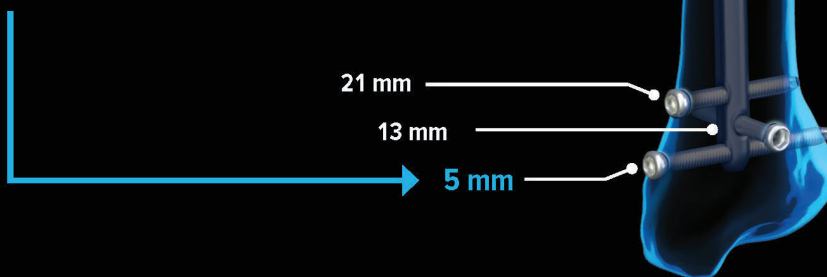


Small and large flexible suprapatellar sheath guides for compatibility with all nail diameters



Up to 8 mm of intraoperative compression<sup>1</sup>

Interlocking available within **5 mm** of the distal end of the nail



Learn more about the Tibial Nail System



**Reference:**

1. Advanced Orthopaedic Solutions, Inc. AOS tibial nail. FDA 510(k) premarket notification. <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm?ID=K070444>.



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# Product Highlight

## Pilon Fracture: SS Distal Tibia Plating With VAL Screws

**Arthrex is expanding its complement of treatment options for distal tibial pilon fractures with several updates to its plating and external fixation portfolio.**

### SS VAL Screw Technology

Arthrex is proud to launch stainless steel, variable-angle KreuLock locking compression screws that can be paired with the entire stainless steel plating portfolio, including the Arthrex Distal Tibia Plating System.

The addition of variable-angle locking (VAL) technology vastly increases the utility of these low-profile, anatomically contoured plates.

These VAL screws feature the same biomechanical advantages as KreuLock screws<sup>1</sup>:

- > Increased interfragmentary compression
- > Increased plate-to-bone compression
- > Comparable construct stiffness
- > Comparable axial and angular stability

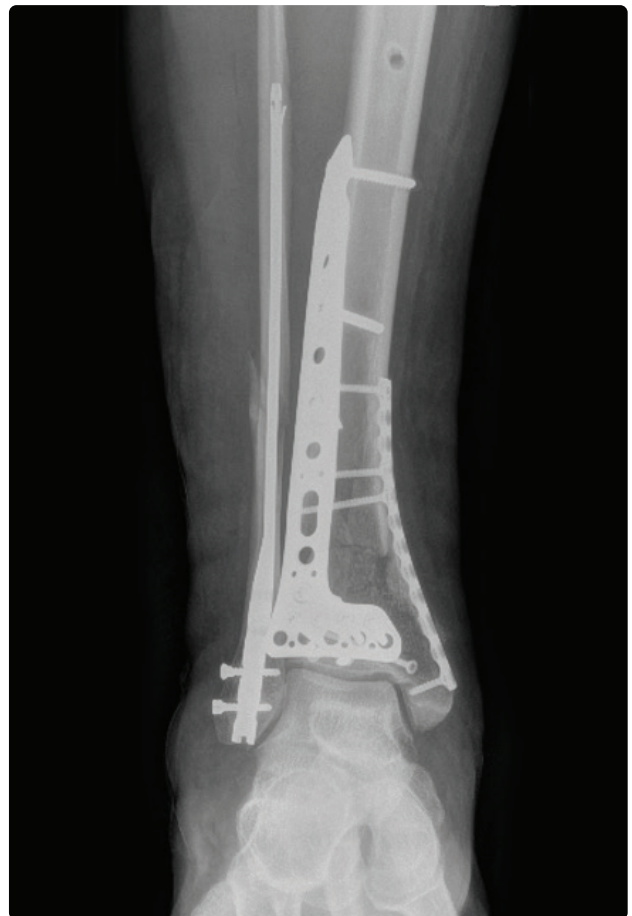
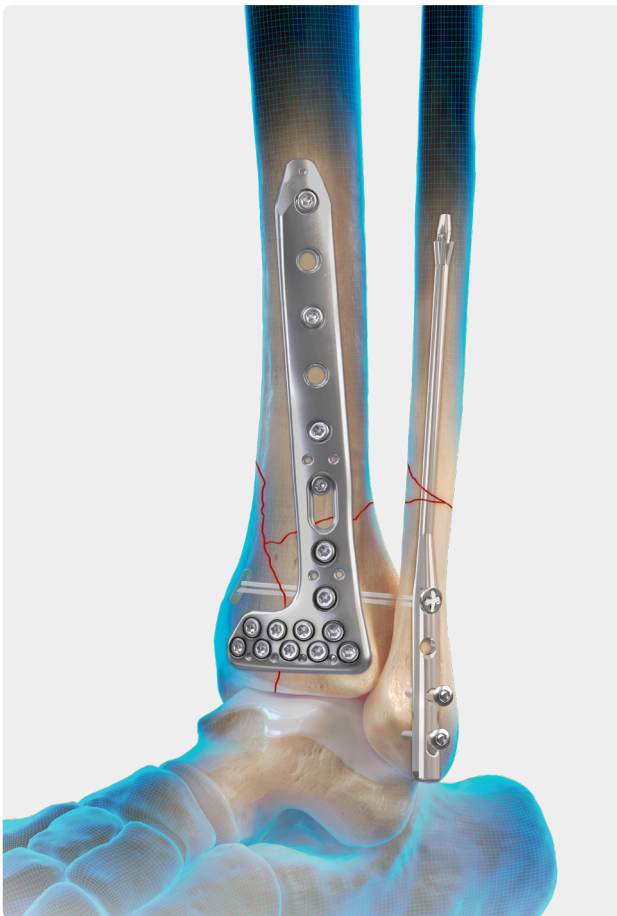


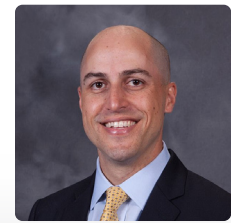
Image courtesy of John Munz, MD

### Reference

1. Koroneos ZA, Alwine S, Tortora P, et al. Bicortical compression and construct stability with variable pitch locking screws in cadaveric specimens. *J Orthop Trauma*. 2024;38(10):e339-e346. doi:10.1097/BOT.0000000000002869

# What's in My Bag

## Ankle Fracture Management and Syndesmosis Repair



Mark Gage, MD

### Fracture Management

#### What makes Arthrex your top option for the treatment of ankle and pilon fractures?

These injuries often have concomitant instability across the tibiotalar and distal tibiofibular relationships. Arthrex has developed a comprehensive system that allows me to reconstruct these fractures and, in my practice, has helped facilitate earlier motion and mobility.

This system has a few advantages that are particularly helpful for complex periarticular fractures. I tend to variable pitch compression headless screws and variable pitch threaded K-wires that allow me to quickly fix and compress subchondral fragments. These small caliber fixation implants are particularly helpful in reconstructing small fragments efficiently.

#### What role does mini fragment fixation play in your treatment of these injuries?

My utilization of mini fragment fixation has certainly increased over the years. This is true particularly for tibial plafond fractures as I have moved more towards smaller incisions and fragment specific fixation which has been helpful in reducing wound complications in these fractures.

#### How have you seen mini fragment fixation evolve over the course of your career?

I think we are finding mini fragment fixation to be increasingly helpful in fracture fixation. Part of the reason is that these systems continue to improve in terms of better plate design, longer small caliber screw lengths, and improved handling with longer instrumentation.



### Syndesmotic Repair

#### What is your “game-changing” study or event that you point towards when discussing how you treat syndesmotic injuries or how your practice changed regarding the syndesmosis?

There have been a few level 1 and level 2 studies highlighting the functional benefit and the increased quality of reduction with the use of suture button trans-syndesmotic fixation when compared to traditional trans-syndesmotic screws. These studies create a compelling argument to consider implants such as TightRope which is the implant that was tested in these high level studies.

The most interesting study to me was a study published in JBJS 2014 (Westermann et al. ). This study demonstrated accurate reduction of the syndesmosis with TightRope even after intentional initial malreduction was performed first with reduction forceps. My conclusion from this study and from experience using TightRope is that the combination of small caliber suture fixation through a larger bone tunnel and allowing for flexible fixation are a helpful combination for ensuring accurate syndesmotic reduction.

### Syndesmotic Repair (con't)

#### Why TightRope for the syndesmosis? And what do you think is often overlooked when treating the syndesmosis?

There is a compelling amount of evidence to support its use for syndesmotic injuries. While there are now similar flexible fixation implants available, these other implants have not been as rigorously vetted nor have the high level evidence of support that is found with the TightRope.

There is highly variable anatomy from patient to patient. The shape of the incisura can be quite different and particularly in the situation of a very flat shaped incisura, the risk of malreduction can be quite high. I find it helpful to obtain contralateral AP and lateral radiographs to confirm the proper rotation and relationship between the fibula and the tibia. Additionally, there are times when simply repairing the anterior inferior tibiofibular ligaments can be a very helpful way to not only restore the proper relationship between the fibula and tibia, but also reinforce your syndesmotic stability.

### What's Next?

#### Where do you think the future of ankle fracture and syndesmotic treatments is headed?

I think traumatologists are continuing to move towards a more comprehensive reconstruction of these complex ankle and hinfot fractures and more specifically in addressing the concomitant ligamentous injury. Particularly in the fracture dislocation situation, the early repair or reconstruction of associated ligament injury can restore joint stability and facilitate earlier motion and mobilization. This is particularly helpful in our polytrauma patients that would otherwise be treated in external fixation or a cast for 4-6 weeks for these unstable joint injuries.

I think we will start to see more ligament-specific repair and reconstruction for the syndesmosis. We are finding that AITFL repairs can be quite helpful as the AITFL is almost always disrupted in a syndesmosis injury. This ligament serves the primary restraint to posterior translation and external rotation of the fibula which is the common deformity we see in syndesmotic disruptions. A repair of the ligament can be quite effective in neutralizing these deforming forces and obtaining the correct relationship between the distal fibula and tibia.



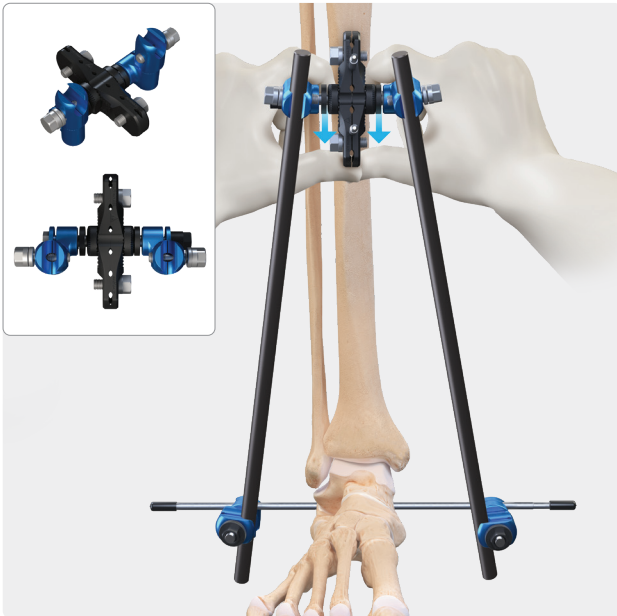
# New Product Highlight

## ArthroFX® External Fixation System

### ArthroFX Clamp Additions

Arthrex is proud to announce the launch of two upgraded components to its ArthroFX external fixation system: the end-to-end clamp and the compression distraction multiclamp. Both of these additions greatly enhance the versatility of the ArthroFX system.

#### Compression/Distraction Multiclamp



The reattaching base of this updated multiclamp allows surgeons to make intraoperative adjustments after the bars have been locked in the construct.

- › 34 mm of compression or distraction
- › 14° of varus/valgus adjustment
- › Independently locked
- › Provisionally holds compression or distraction prior to final tightening

#### End-to-End Bar Clamp



The end-to-end bar clamps enable additional stability by reducing the degrees of freedom and enabling constructs to be connected together.

- › Clamps are independently locked to bars
- › Provide controlled rotation
- › Aids in intraoperative reduction techniques



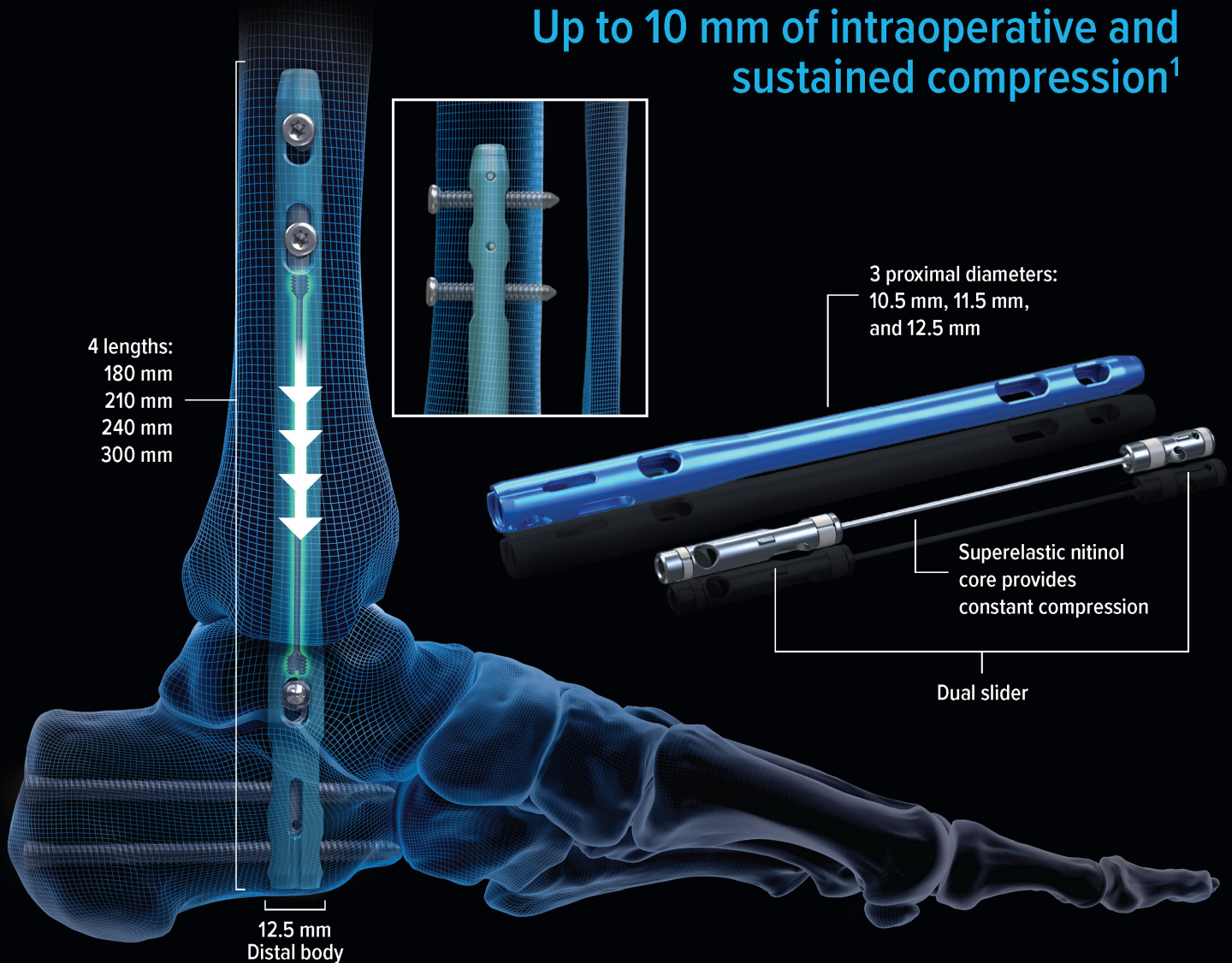
Learn more about  
ArthroFX System



# DualCompression

## HINDFOOT NAIL

Up to 10 mm of intraoperative and sustained compression<sup>1</sup>



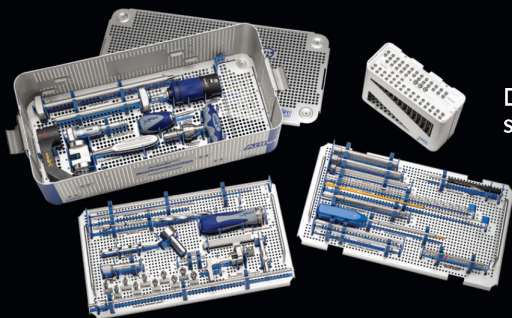
4 lengths:  
180 mm  
210 mm  
240 mm  
300 mm

3 proximal diameters:  
10.5 mm, 11.5 mm,  
and 12.5 mm

Superelastic nitinol  
core provides  
constant compression

Dual slider

12.5 mm  
Distal body



DualCompression  
system

Learn more about  
*DualCompression*  
*Hindfoot Nail*



Reference

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

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**Arthrex**<sup>®</sup>

# Feature Article

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



Robert Gorsline, MD

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 weight-bearing, 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 neuroosteoarthropathy (Charcot's foot), avascular necrosis of the talus, failed joint replacement, failed ankle fusion, 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.



**Titanium Wrist Plating System**



Small External Fixator    3.5 mm Locking Compression Plates    Arthrex Elbow Fracture Plating System



**Proximal Humerus Plating System**



FxBridge™ Tuberosity Repair System    Uniers Revers™ Total Shoulder System    Humeral Nail System



**HAND, WRIST, AND ELBOW**

**Clavicle Fracture System**



**SHOULDER**

**KNEE**

**Patella Fracture**



**Titanium Proximal Tibia Plating System**

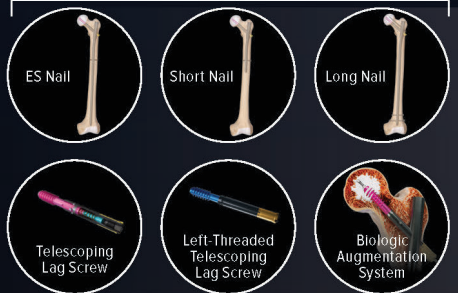


**Tibial Nail System**



**HIP**

**Trochanteric Nails**

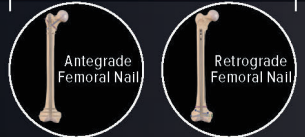


**FOOT AND ANKLE**

**7.0 mm Cannulated Screws**



**Femoral Nail System**



**External Fixator Systems**



**Pilon Fusion Plating System**



**Calcaneal Fracture System**



**Syndesmosis TightRope XP Implant System**



**Ankle Fracture Solutions**

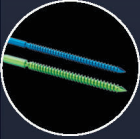


**GENERAL**

Trauma Mini  
Fragment System



Snap-Off Compression  
FT Pins



KreuLock™ Locking  
Compression Screws



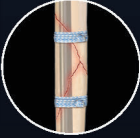
Mini Comprehensive  
Fixation System



Compression FT  
Screws



FiberTape®  
Cerclage



**ORTHOBIOLGICS**

Quickset™  
Cement



BoneSync™  
Cement



BoneSync Putty  
and Strips



Arthrex Calcium  
Sulfate BioBeads



ArthroCell™ Plus  
Viable Bone Matrix



OsteoAuger™ Bone  
Graft Harvesting System



BioCartilage®  
Extracellular Matrix



Arthrex ACP®  
Double-Syringe System



Learn more

# Trauma and Extremities Medical Education

## Course Schedule

### Upcoming Medical Education Events

Date	Course Name	Location
2025		
October 24	On-Call With Arthrex Trauma	Naples, FL
October 31	Controversies in Foot and Ankle Surgery	Naples, FL
November 21	Western Hand, Wrist, and Elbow Complex Cases and Revisions Course	Englewood, CO
December 6	Complex and Revision Shoulder Arthroplasty Course	Naples, FL
2026		
January 16-17	On-Call With Arthrex Trauma	Englewood, CO
February 13	Team Physician Controversies	Naples, FL
March 20	Foot and Ankle Team Physician Controversies	Naples, FL
April 17-18	On-Call With Arthrex Trauma	Naples, FL

### Resident and Fellows Events

Date	Course Name	Location
2025		
December 5-6	Approaching Fellowship	Naples, FL
2026		
May 29-30	Trauma Fellows Course	Naples, FL

For more details, connect with your Arthrex Technology Consultant.







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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.



Arthrex manufacturer, authorized representative, and importer information (Arthrex eIFUS)



US patent information