Comprehensive Solutions to Arthroscopic Meniscal Repair

Arthrex®

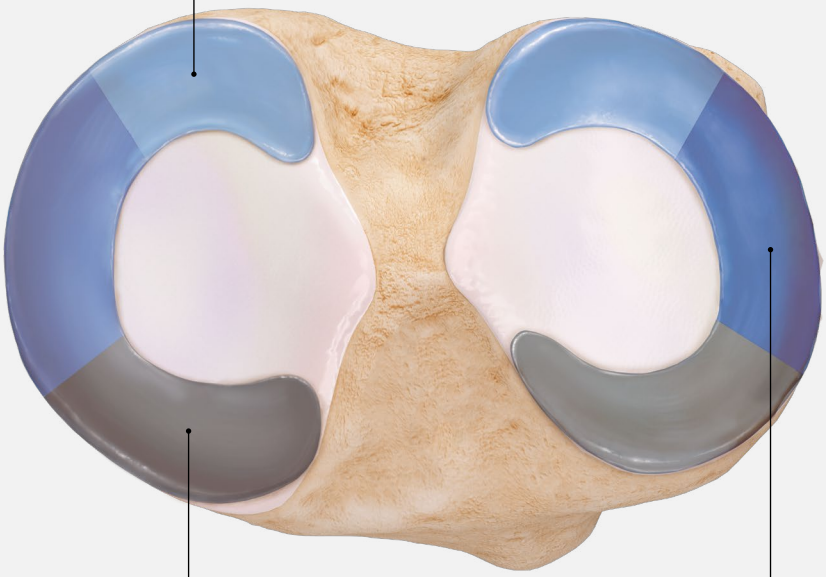
When You Treat the Meniscus, Think Arthrex

The comprehensive solutions to meniscal repair provide orthopedic surgeons unique options based on tear patterns, neurovascular safety, and surgical time constraints. All-inside, inside-out, and outside-in technique options are essential to safely address every anatomical meniscal tear pattern encountered during arthroscopy.

The diagram below represents zone-specific considerations for safe and effective arthroscopic meniscal repair based on tear location.

Posterior

- FiberStitch™ 1.5 Implant
- Meniscal Cinch™ II Implant
- Knee Scorpion™ Suture Passer
- ZoneNavigator™ System
- 2-0 Mini SutureTape
- SutureLoc™ Root Repair



Anterior

- ZoneNavigator System
- FiberStitch 1.5 Implant
- Micro SutureLasso™ Instrument

Medial

- FiberStitch 1.5 Implant
- Meniscal Cinch II Implant
- Knee Scorpion Suture Passer
- ZoneNavigator System

All-Inside Options

FiberStitch™ 1.5 All-Inside Meniscal Repair

The FiberStitch 1.5 implant is a 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.[1] The proven superiority of FiberStitch all-suture anchors for all-inside meniscal repair is evident when compared to traditional PEEK implant systems.[2] Made with 2-0 coreless FiberWire® suture, soft anchors provide secure arthroscopic all-inside knotless meniscal repair.

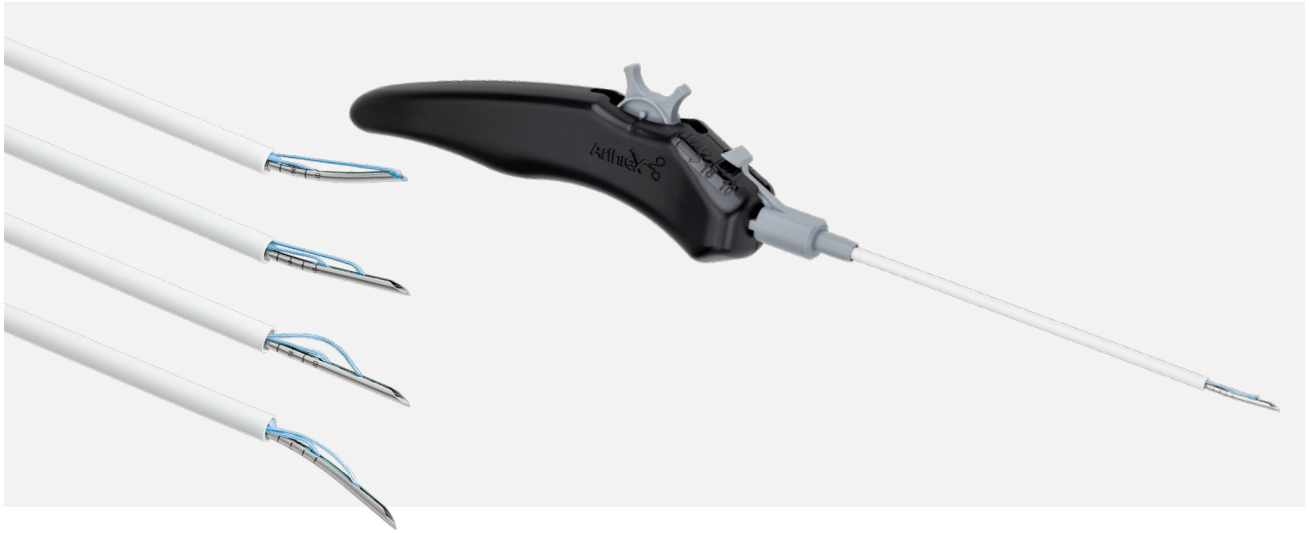
Multiple Delivery Options
The FiberStitch 1.5 implant is available in four different needle tip configurations: a standard 12˚ up curve, a 24˚ up curve, a 12˚ reverse curve, and a straight needle. Each needle tip can be bent to unique angles for meniscal penetration. Use the enhanced 24˚ up curve to reach posterior areas of the meniscus or, when placed on its side, the larger curve can access the anterior meniscus through the contralateral portal.

With the FiberStitch 1.5 reverse and straight options, surgeons have better access to undersurface meniscal tears, which can be challenging to repair. The reverse curve is designed with the needle bevel on the top to prevent skiving when approaching meniscal tissue. 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.

- **Tissue-Sparing, Low-Profile Needle Diameter:** A low-profile 1.5 mm-diameter needle creates an atraumatic perforation in the meniscus to deliver smaller all-suture anchors.
- **Low-Profile Suture Implants:** The low-profile suture implants replace traditional hard PEEK plastic anchors. Low-profile 2-0 coreless FiberWire suture prevents tissue cut-through and minimizes friction against articular cartilage.[3]
- **One-Handed Deployment:** The ergonomic handle and easy implant deployment wheel allow true one-handed implant delivery.
- **Adjustable Depth Stop:** The integrated depth stop can be set with a single hand. Convenient markings in 2 mm increments allow setting adjustments from a minimum of 10 mm to a maximum of 18 mm.

1.5 FiberStitch Implant

Product Description	Item Number
1.5 FiberStitch implant, 12˚ up curve	AR-**4580**
1.5 FiberStitch implant, 24˚ up curve	AR-**4580-24**
1.5 FiberStitch implant, straight	AR-**4580S**
1.5 FiberStitch implant, reverse curve	AR-**4580R**



Knee Scorpion™ Suture Passer

The low-profile Knee Scorpion suture passer allows access in tight recesses of the knee for passing 0 or 2-0 FiberWire® suture. Ergonomically designed for one-handed use, the Knee Scorpion suture passer adds simplicity to suture passing, efficiently passing and retrieving suture in one step. Achieve a variety of suture configurations for soft-tissue repair and fixation using the Knee Scorpion suture passer.

- **Consistency:** Functions similar to other Scorpion devices
- **Low-Profile:** Jaw diameter is 3.2 mm × 4.5 mm; perfect for tight spaces in the knee
- **Economical:** Autoclavable reusable instrument with a low-cost disposable needle

Knee Scorpion Suture Passer

Product Description	Item Number
Knee Scorpion suture passer	AR-**12990**
Knee Scorpion needle	AR-**129990N**

Accessories

Product Description	Item Number
Knot pusher/suture cutter (disposable)	AR-**5815**
Measurement probe	AR-**13920P**
2-0 knot pusher	AR-**1296D**

Suture Option

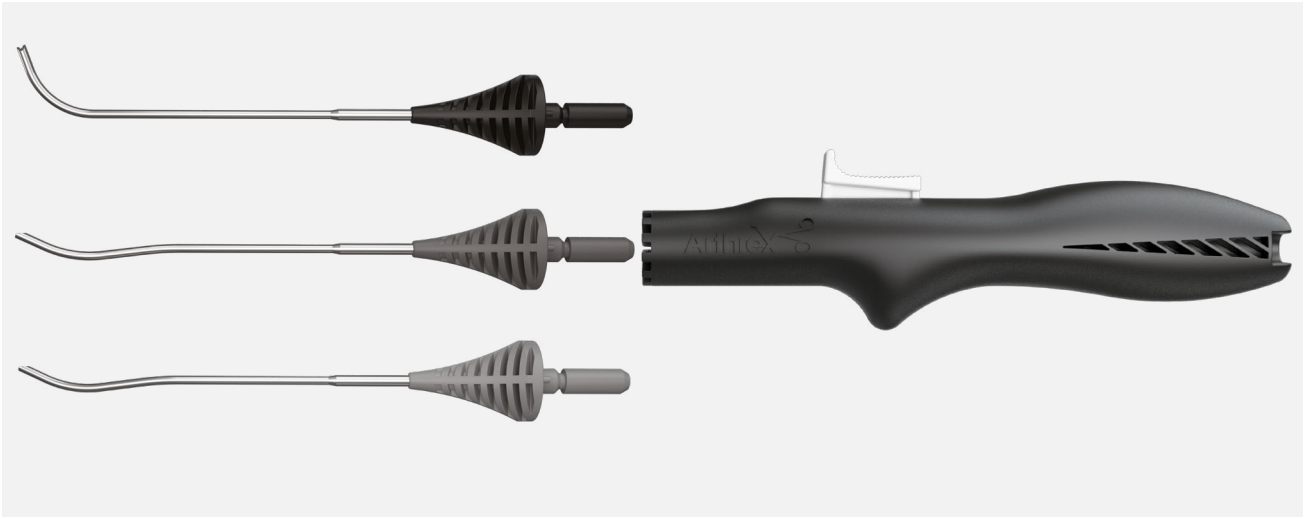
Product Description	Item Number
SutureTape, 0.9 mm	AR-**7521**
2-0 Mini SutureTape meniscus repair needles	AR-**7523**
FiberLink™ SutureTape suture, 0.9 mm, white/black	AR-**7559**
TigerLink™ SutureTape suture, 0.9 mm, white/black	AR-**7559T**

Inside-Out and Outside-In Options

ZoneNavigator™ System

The ZoneNavigator system precisely places suture for inside-out meniscus repair. Three interchangeable cannulas are available to reach any portion of the meniscus for passing vertical or horizontal mattress sutures on the superior or inferior aspect of the meniscus. The ergonomic handle controls needle advancement in 1 cm increments.

- **Anterior Cannula:** The anterior cannula is optimal for inside-out meniscus repair, from the anterior horn to the middle zone of the meniscus. Introduce the cannula through the contralateral portal for extreme anterior meniscus repair.
- **Middle/Posterior Cannula:** Specific left and right cannulas target the posterior and middle zones of the meniscus.
- **Mini SutureTape With Meniscal Repair Needles:** The 0.7 mm stainless steel needles with Mini SutureTape are specifically designed for use with the ZoneNavigator system. The 0.9 mm-wide SutureTape disperses forces over a greater area compared to smaller round suture.
- **Ergonomic Handle:** Control suture placement and needle advancement in 1 cm increments with the ergonomically designed handle. This allows the surgeon to hold the arthroscope with one hand and insert sutures with their other hand.



ZoneNavigator System

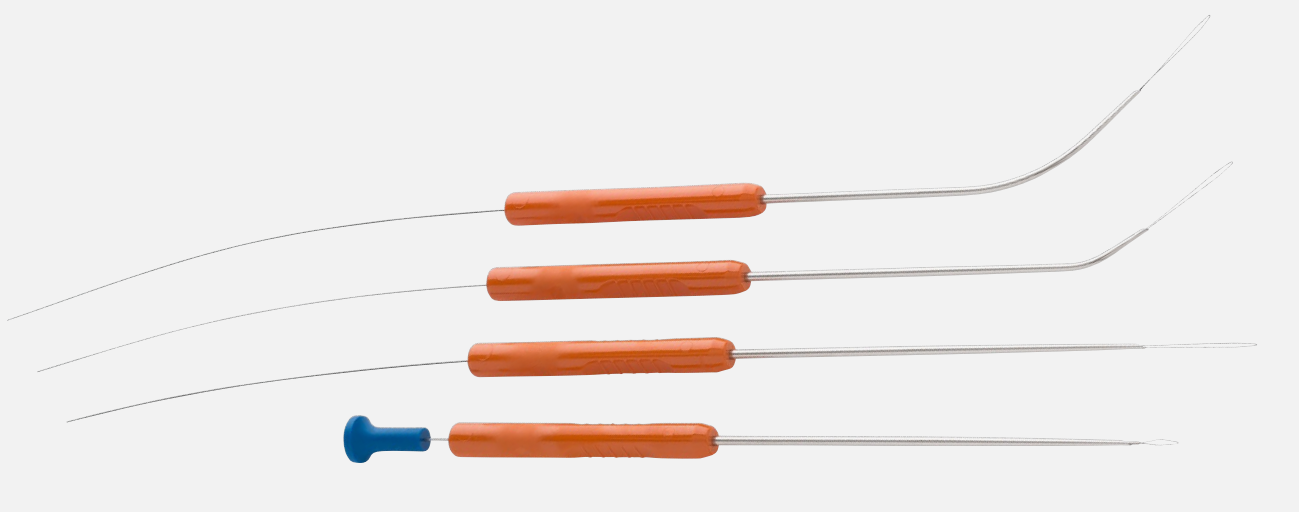
Product Description	Item Number
ZoneNavigator system handle	AR-**7900**
ZoneNavigator system anterior cannula	AR-**7905**
ZoneNavigator system cannula, left posterior	AR-**7910L**
ZoneNavigator system cannula, right posterior	AR-**7910R**
Needle catcher	AR-**6660**

Suture

Product Description	Item Number
2-0 Mini SutureTape meniscus repair needles, qty. 2	AR-**7523**
2-0 FiberWire® suture meniscus repair needles, small, qty. 2	AR-**7223SM**

Micro SutureLasso™ Instrument

The Micro SutureLasso Instrument, a 6 in-long cannulated stainless-steel shaft with an ergonomic plastic handle, facilitates the placement of simple and mattress stitches for repairing various meniscal tears using an outside-in approach. These strong, stainless steel needles come preloaded with a braided nitinol wire for use as a suture shuttle and are available in small-curve, large-curve, and straight configurations for accessing hard-to-reach areas. Each Micro SutureLasso needle tapers from 16 gauge proximally at the handle junction to 20 gauge distally along the last 20 mm of the tip. As an alternative, all FiberStick™ sutures can be passed down the instrument with ease.



Micro SutureLasso Instruments

Product Description	Item Number
Micro SutureLasso suture passer, small curve	AR-**8701**
Micro SutureLasso suture passer, large curve	AR-**8702**
Micro SutureLasso suture passer, straight	AR-**8703**
Micro SutureLasso retriever	AR-**8701SR**

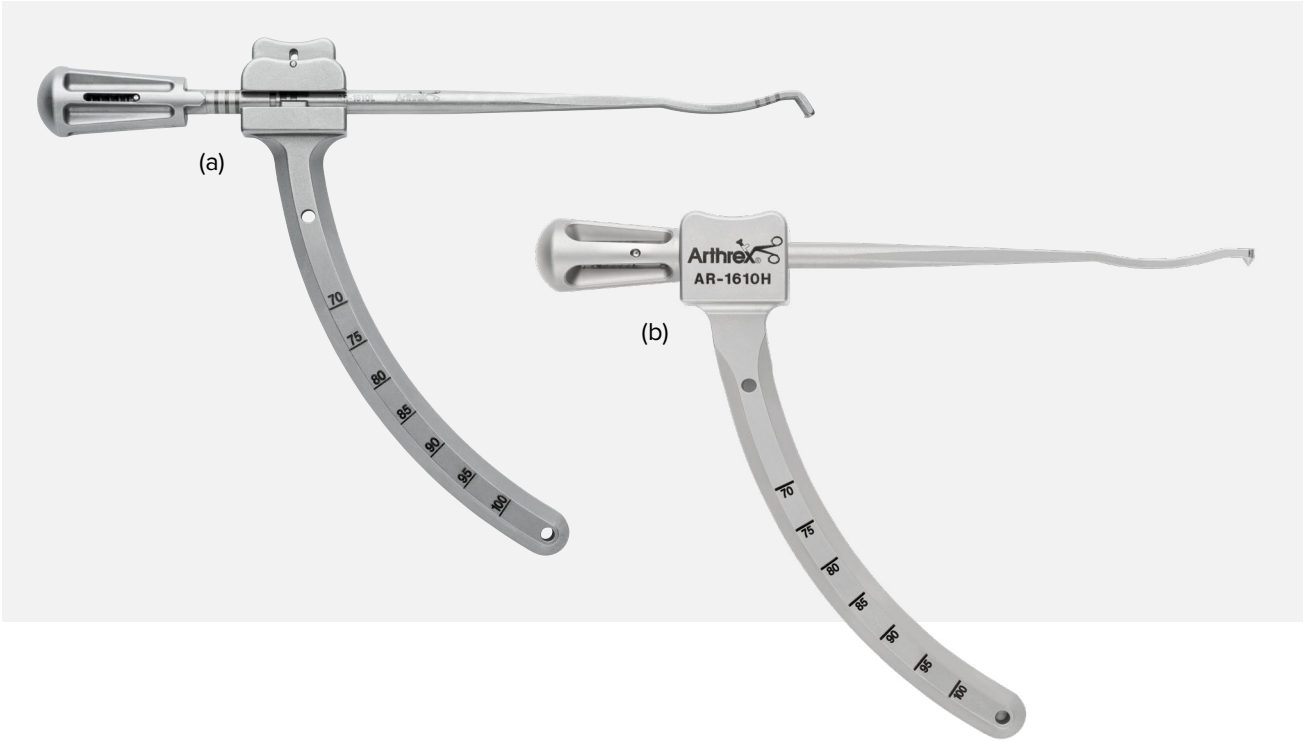
Optional Accessories

Product Description	Item Number
FiberStick Suture, #2 FiberWire® suture, 50 in (blue), one end stiffened, 12 in	AR-**7209**
TigerStick® Suture, #2 TigerWire® suture, 50 in (white/black), one end stiffened, 12 in	AR-**7209T**
2-0 FiberStick Suture, 2-0 FiberWire suture 50 in (blue), one end stiffened, 12 in	AR-**7222**
2-0 Mini SutureTape	AR-**7521**

Meniscal Root Marking Hooks

Based on surgeon preference, Arthrex offers 2 meniscal root marking hooks. The over-the-back marking hook **(a)** sits securely over the back of the tibia for stable drilling using a 6 mm FlipCutter® II reamer for socket preparation. The over-the-back hook and ratcheting drill sleeve provide 2-point fixation and guided stability during drilling. The locking mechanism aids insertion into the joint, and the low-profile design avoids intact anatomy while allowing arthroscopic visualization of the repair site. Choose from 3 offsets for bone socket preparation: 5 mm, 7.5 mm, or 10 mm from the posterior tibia.

The point-to-point guide **(b)** allows surgeons to directly target their drill location at the meniscal root. Laser markings at the distal tip of the guide allow for accurate targeting, while the small cone helps secure the surgeon's position while drilling. With the spring-loaded system, surgeons can dial in their angle of approach and lock the guide in place at 10˚, 20˚, 30˚, and 40˚ in either direction.



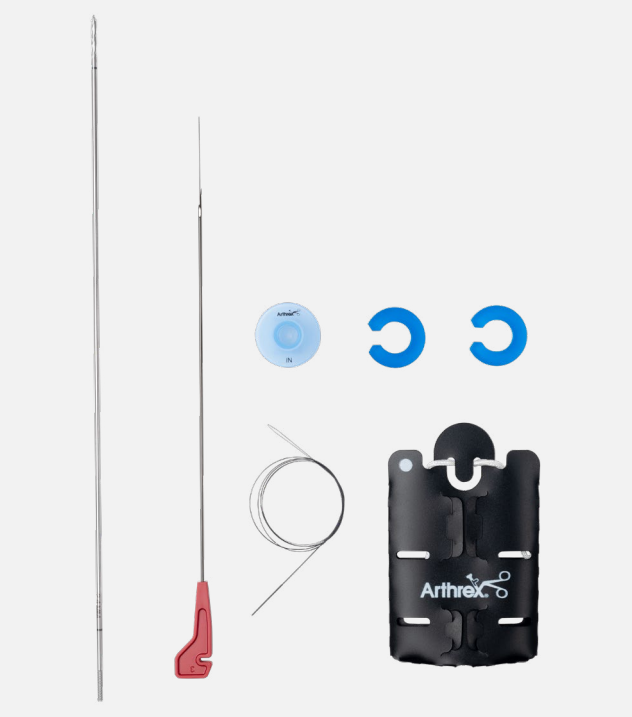
Meniscal Root Marking Hooks

Product Description	Item Number
Locking guide **(a)**	AR-**1610LG**
Over-the-back meniscal root marking hook	AR-**1610MR**
Point-to-point meniscal root marking hook **(b)**	AR-**1610H**

SutureLoc™ Implant

The SutureLoc implant is an all-suture, knotless anchor specifically designed for joint-line fixation of the meniscal root. This revolutionary anchor eliminates the need for a posterior medial portal, which is commonly used in direct tibial fixation techniques, making the repair more reproducible. The 2.4 mm cannulated drill pin leaves more bone intact while delivering the SutureLasso™ wire directly to the footprint of the meniscal root. Once the anchor has been passed, the 2 repair sutures can be passed through the tissue in a variety of stitch patterns. The knotless technology is retensionable, allowing surgeons to dial in their repair.

- 236.8 N of pull-out strength and 0.34 mm of cyclic displacement[4]
- Double-loaded knotless mechanism allows for 2 repair stitches with only 1 anchor pass, reducing steps from previous techniques
- Soft, all-suture implant
- Minimal bone removal with a smaller, 2.4 mm drill pin and no need to decorticate
- Simple, reproducible suture passing
- Suture tension can be controlled and adjusted under direct visualization
- The repair suture is converted inline, eliminating the “killer curve” and allowing for a smooth conversion

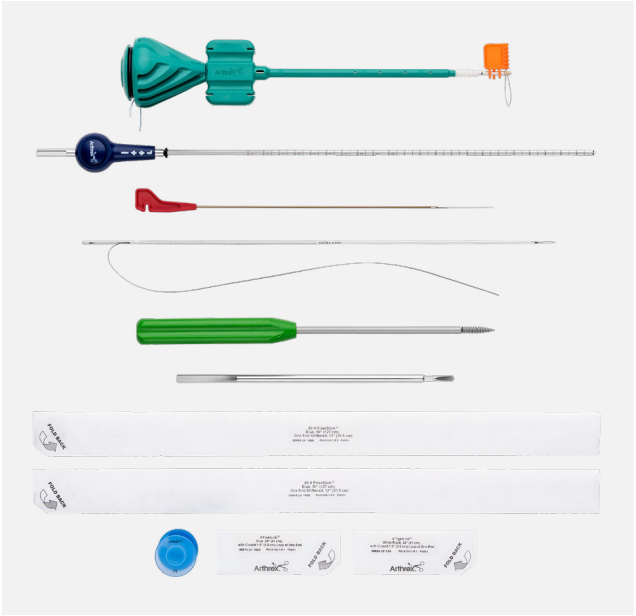


SutureLoc Implant

Product Description	Item Number
SutureLoc meniscal root repair kit	AR-**4551**

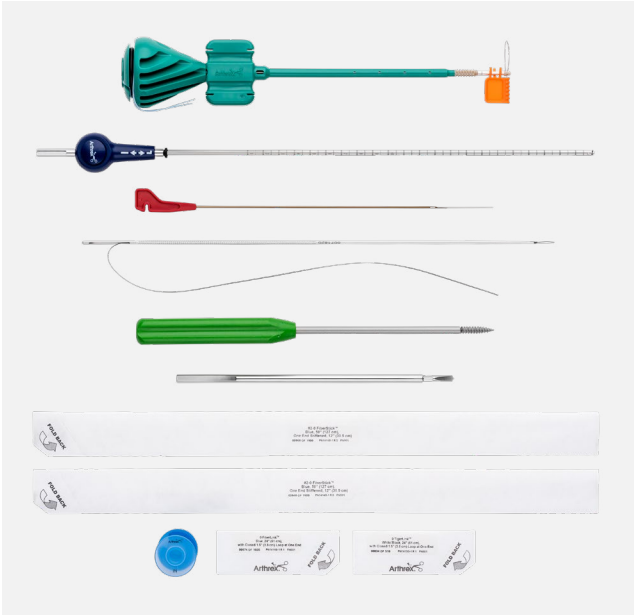
Meniscal Root Repair Kits

Complete transtibial meniscus root repairs with the convenient meniscal root repair kit, which contains an 8 mm × 3 mm PassPort Button™ cannula and a Knee Scorpion™ needle for passing 2-0 and 0 FiberWire® suture with the Knee Scorpion suture passer. Various suture configurations are possible with 2-0 FiberStick™, 0 FiberLink™, and TigerLink™ sutures. Prepare the bone socket and create the transtibial tunnel using the FlipCutter® II drill. Secure the repair with 4.75 mm BioComposite or PEEK SwiveLock® anchor.



Implant System, Meniscal Root Repair With BioComposite SwiveLock Kit (AR-**4550BC**)

Product Description
BioComposite SwiveLock anchor, 4.75 mm × 19.1 mm
Knee Scorpion needle
FlipCutter II drill, 6 mm
PassPort Button cannula, 8 mm × 3 cm
2-0 FiberStick suture, qty. 2
SutureLasso™ Needle w/ nitinol passing wire
0 FiberLink suture, 0 TigerLink suture
Spade-tip drill bit
SwiveLock anchor tap, for hard bone



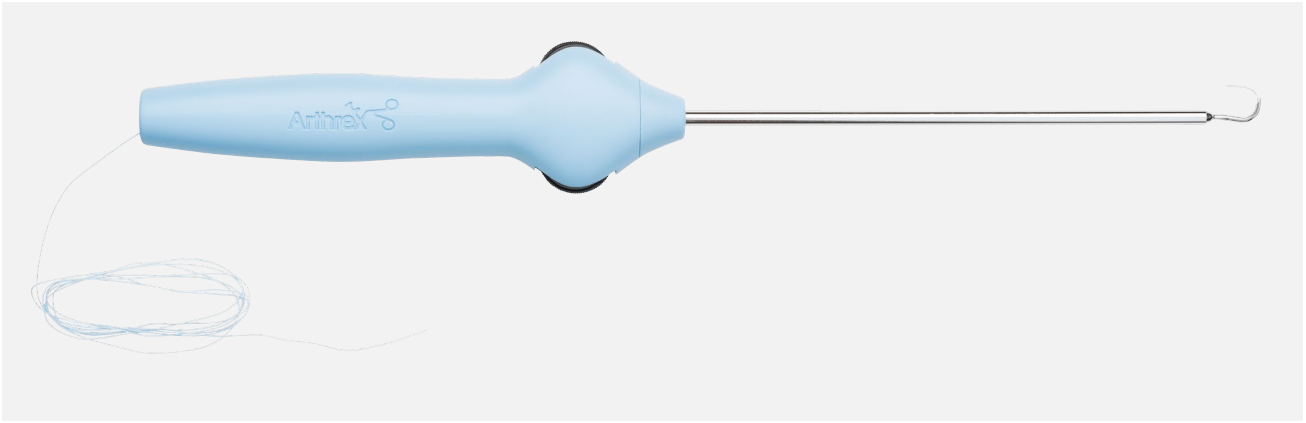
Implant System, Meniscal Root Repair With PEEK SwiveLock Kit (AR-**4550P**)

Product Description
PEEK SwiveLock anchor, 4.75 mm × 19.1 mm
Knee Scorpion needle
FlipCutter II drill, 6 mm
PassPort Button cannula, 8 mm × 3 cm
2-0 FiberStick suture, qty. 2
SutureLasso needle w/ nitinol passing wire
0 FiberLink suture, 0 TigerLink suture
Spade-tip drill bit
SwiveLock anchor tap, for hard bone

Ramp Lesion Meniscus Repair

QuickPass™ SutureLasso™ Suture Passer

The ramp lesion is a disruption of the meniscotibial ligament and the posteromedial meniscus in the meniscocapsular zone. The lesion is commonly associated with ACL injuries and is often misdiagnosed. Disruption of the posterior horn of the medial meniscus could lead to excessive force within the knee joint and surrounding structures. The QuickPass SutureLasso suture passer is preloaded with a 2-0 FiberStick™ suture and offered with a left or right 25° curve and a 1.5 mm tip.



QuickPass SutureLasso Suture Passer

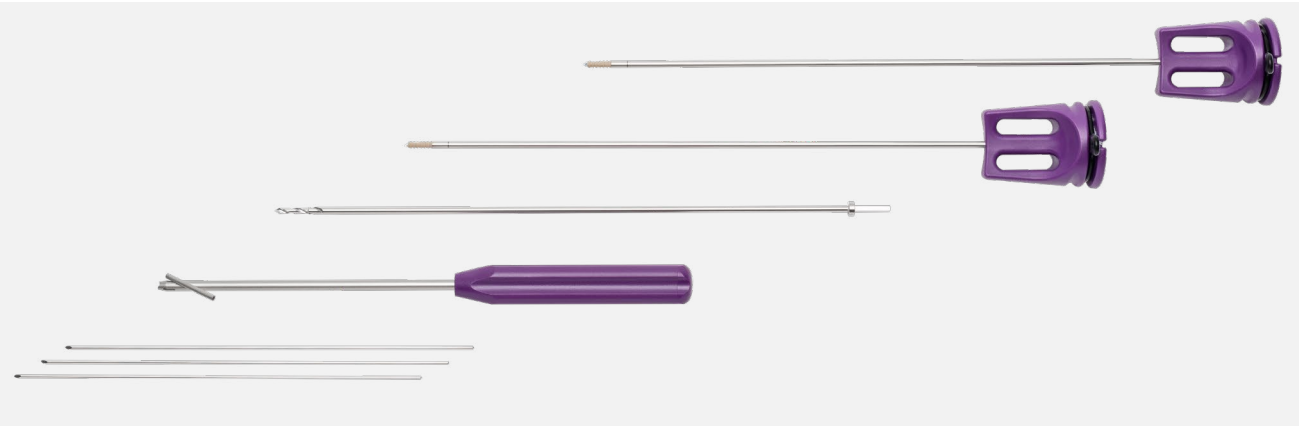
Product Description	Item Number
QuickPass SutureLasso suture passer, 25°, curved left	AR-**6068-25L**
QuickPass SutureLasso suture passer, 25°, curved right	AR-**6068-25R**

Meniscal Extrusion

Knee Capsule Repair System

Meniscal extrusion, which results in compromised load-bearing function of the medial meniscus, is increasingly being recognized as clinically significant.[5] One cause of medial meniscal extrusion is insufficiency of the medial capsule and meniscotibial ligaments (MTL). Knee capsule repair is effective in reducing meniscal extrusion resulting from MTL insufficiency and thereby restoring the potential for improved load sharing across the medial compartment. The Knee Capsule Implant System was designed to facilitate reproducible repair of the medial capsule.

Included in the Knee Capsule Repair Implant System are 2 knotless SutureTak® percutaneous insertion anchors, the GAP™ (Guided Arthroscopic Placement) drill guide and three percutaneous K-wires. The GAP guide allows reproducible placement of the implants at a distance 3 mm below the medial tibial joint line.



Knee Capsule Repair Implant System with GAP (Guided Arthroscopic Placement) Drill Guide (AR-**5875-2**)

Product Description	Item Number
3.0 mm PEEK Knotless SutureTak anchors, qty. 2 GAP drill guide GAP drill guide K-wires, qty. 3 Drill for 3.0 mm PEEK Knotless SutureTak anchors	

Implant

Product Description	Item Number
3.0 mm PEEK Knotless SutureTak anchor	AR-**1938PS**

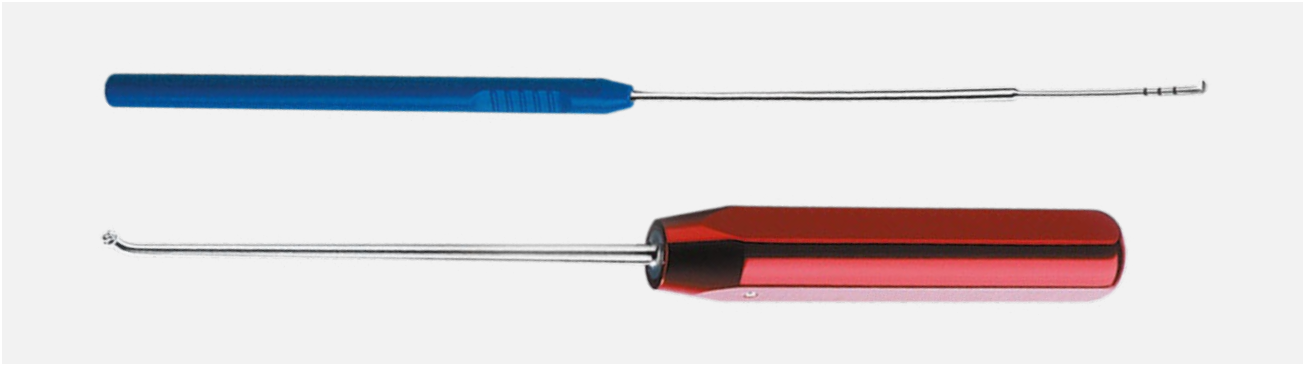
Accessories

Product Description	Item Number
GAP drill guide	AR-**5875G**
GAP drill guide needle	AR-**5875N**
Meniscal repair rasp	AR-**4130**
2.6 mm drill, hard bone	AR-**1938D**

Meniscal Repair and Resection Accessories

Meniscal Measuring Probe

Use the malleable Meniscal Dart™ measuring probe to measure the width of the meniscus. The angled tip of the meniscus repair rasp is ideally shaped to access inside the meniscal tear for debridement prior to the repair. The malleable portal skid can be used to clear access into the knee joint and can be bent for anatomical customization.

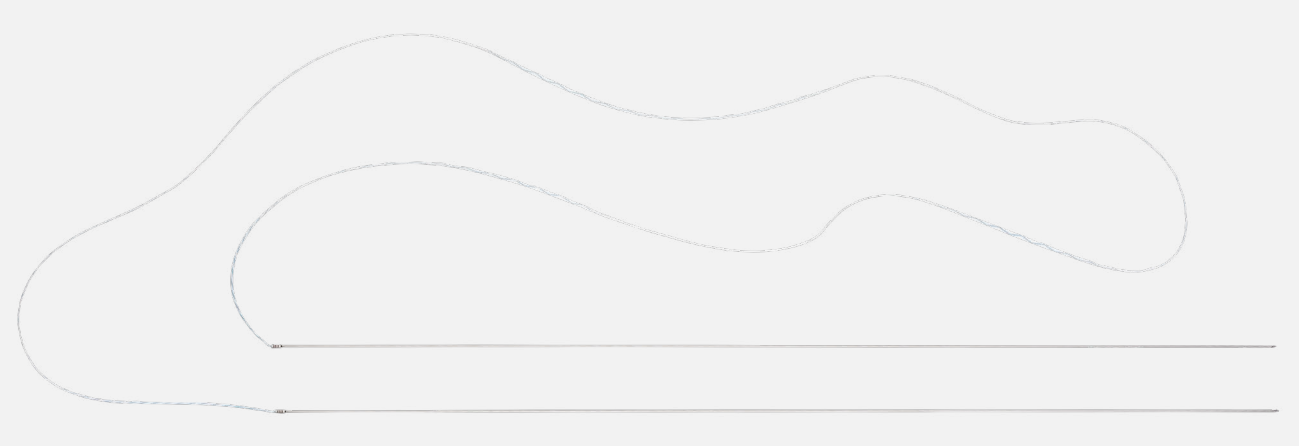


Meniscal Repair Accessories

Product Description	Item Number
Meniscal Dart measuring probe	AR-**4008**
Meniscus repair rasp	AR-**4230**
Portal skid	AR-**4505**

Mini SutureTape Meniscus Repair Needles

The FiberWire® suture meniscus repair needles are made of standard stainless steel with a 38 in length of 2-0 FiberWire suture or Mini SutureTape. The 0.9 mm Mini SutureTape disperses the compressive force across a larger area compared to round suture. This allows surgeons to perform standard inside-out meniscus repair with all the benefits of FiberWire suture and SutureTape.



Mini SutureTape Needles

Product Description	Item Number
2-0 Mini SutureTape meniscus repair needles	AR-**7523**
2-0 Mini SutureTape, no needles	AR-**7521**

2-0 FiberWire Suture With Meniscus Repair Needles

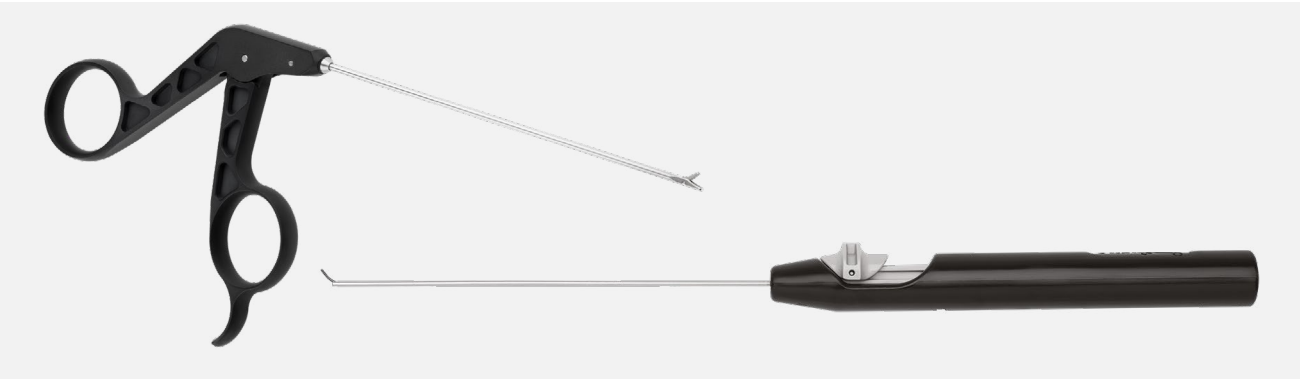
Product Description	Item Number
2-0 FiberWire suture meniscus repair needles, qty. 2	AR-**7223**
2-0 FiberWire suture meniscus repair needles, small, qty. 2	AR-**7223SM**

2-0 FiberLink™ and TigerLink™ SutureTape Suture

Product Description	Item Number
FiberLink™ SutureTape, 0.9 mm, white/black	AR-**7559**
TigerLink™ SutureTape, 0.9 mm, white/black	AR-**7559T**

Nano Instruments

Harnessing 20 years of engineering excellence in designing arthroscopic hand instrumentation, Arthrex has produced the next generation in tissue resection and extraction instruments that are sharp and strong enough to resect and remove meniscal tissue. The low-profile tip design facilitates safe introduction into most tight joint spaces without the need for a limb holder.

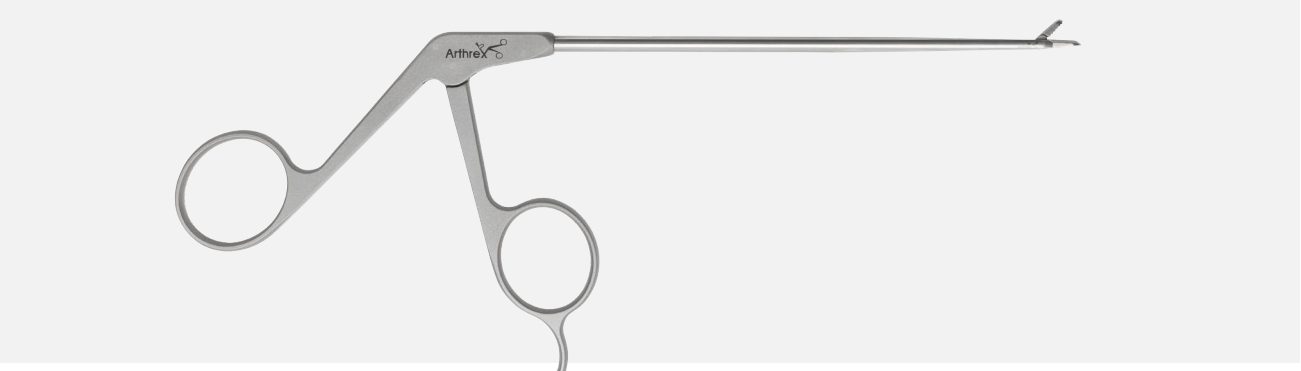


Nano Instruments

Product Description	Item Number
NanoScope™ probe	AR-**10100N**
NanoGrasper, straight, disposable, 130 mm	AR-**10913D-1**
NanoScissor, straight, disposable, 130 mm	AR-**10915D-1**
NanoBiter, straight, disposable, 130 mm	AR-**10911D-1**
NanoBiter, 15° up, disposable, 130 mm	AR-**10922D-1**

MegaBiter™ Tissue Resector

The MegaBiter tissue resector has transformed meniscal resection with its large, 5.5 mm bite width. Its low-profile design helps reach tight recesses in joint spaces. The straight MegaBiter resector provides the same bite width without the curved tip, allowing access to tissue in tighter joint spaces.



MegaBiter Tissue Resector

Product Description	Item Number
MegaBiter resector, 5.5 mm × 2.5 mm, straight tip	AR-**41006**
MegaBiter resector, 5.5 mm × 2.5 mm, up curved tip	AR-**41026**
MegaBiter resector, 5.5 mm, straight tip, left cut	AR-**41006L**
MegaBiter resector, 5.5 mm, straight tip, right cut	AR-**41006R**

Nano Suction Punch

The Nano Suction Punch functions like a hand shaver with a novel suction rongeur mechanism for atomic tissue resection to replicate the meniscal slope with features including suction titrated with a sliding tab for optimal suction strength and tissue aspiration without clogging.

Product Description	Item Number
130 mm, flat tip	AR-**10930F-1**
130 mm, scoop tip	AR-**10931F-1**
130 mm, bullet tip	AR-**10932F-1**

Arthroscopic Meniscectomy Instrument Set

The lightweight arthroscopic meniscectomy instrument set contains Arthrex's most popular hand instruments. The anodized aluminum case can safely store up to 20 arthroscopy instruments, which are held securely in slotted silicone pads with the tips in the open position for protection and easy identification.

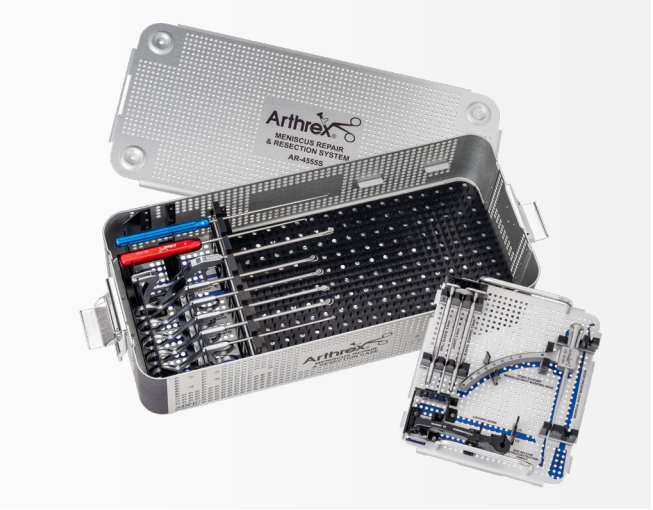
Arthroscopic Meniscectomy Instrument Set (AR-**2200CS**)

Product Description	Item Number
Punch, slender straight tip, Ø2.75 mm straight shaft	AR-**11100**
Punch, large straight tip, Ø2.75 mm straight shaft	AR-**11200**
Grasper, mini straight tip, Ø2.75 mm 15° up curved shaft w/ self-release (SR) handle	AR-**11910SR***
Punch, standard straight tip, Ø3.4 mm straight shaft	AR-**12000**
Scissor, serrated tooth straight tip, Ø3.4 mm straight shaft	AR-**12140**
WideBiter™ Punch, 15° up tip, Ø3.4 mm, straight shaft	AR-**12240**
WideBiter Punch, 15° up tip, Ø3.4 mm 15° up curved shaft	AR-**12241**
Grasper, blunt straight tip, Ø3.4 mm straight shaft w/ SR handle	AR-**12500SR***
Punch, medium reverse straight tip, Ø3.4 mm straight shaft	AR-**12530**
Punch, medium 45° right angled tip, Ø3.4 mm straight shaft	AR-**12800**
Punch, medium 45° left angled tip, Ø3.4 mm straight shaft	AR-**12810**
WideBiter punch, 90° right rotary tip, Ø3.4 mm straight shaft	AR-**12912**
WideBiter punch, 90° left rotary tip, Ø3.4 mm straight shaft	AR-**12913**
Punch, rotary w/ scoop 90° right tip, Ø3.4 mm straight shaft	AR-**12940**
Punch, rotary w/ scoop 90° left tip, Ø3.4 mm straight shaft	AR-**12950**
Grasper, alligator hook tip, Ø4.2 mm, straight shaft w/ SR handle	AR-**13600SR***
MegaBiter™ tissue resector, 5.5 mm × 2.5 mm, straight tip	AR-**41006**
MegaBiter tissue resector, 5.5 mm × 2.5 mm, up curved tip	AR-**41026**
MegaBiter tissue resector, 5.5 mm, straight tip, left cut	AR-**41006L**
MegaBiter tissue resector, 5.5 mm, straight tip, right cut	AR-**41006R**
Hand instrument case, 20 slots	AR-**2200C**

*SR graspers are available upon request at no additional charge.

Meniscus Repair and Resection Set

The Meniscus Repair and Resection Set contains the most popular instruments for addressing various meniscus procedures, including meniscal root repair, all-suture meniscus repair, and meniscus contouring. The instruments are held securely within the slotted silicone pads for protection. A removable shelf uncovers an open space for placement of additional instrumentation.



Meniscus Repair and Resection Set (AR-**4555S**)

Product Description	Item Number
Point-to-point meniscal root marking hook	AR-**1610H**
Knee Scorpion™ suture passer	AR-**12990**
Mini Suture retriever, 2.75 mm, straight	AR-**11540**
MegaBiter™ tissue resector, straight	AR-**41006**
MegaBiter tissue resector, up curve	AR-**41026**
MegaBiter tissue resector, straight left	AR-**41006L**
MegaBiter tissue resector, straight right	AR-**41006R**
Hook probe, 3.4 mm	AR-**10010**
Meniscus repair rasp	AR-**4130**
Side-release RetroConstruction™ handle	AR-**1510HR**
Drill sleeve for side-release handle, 2.4 mm, ratcheting	AR-**1510FD-24**
Stepped drill sleeve for side-release handle, ratcheting	AR-**1510FS-7**
Guide pin sleeve for stepped drill sleeve, 2.4 mm	AR-**1204F-24I**
Meniscus repair and resection instrument set	AR-**4555C**

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
3. Bisson LJ, Manohar LM, Wilkins RD, et al. Influence of suture material on the biomechanical behavior of suture-tendon specimens: a controlled study in bovine rotator cuff. *Am J Sports Med.* 2008;36(5):907-912. doi:10.1177/0363546508314793
4. Arthrex, Inc. Data on file (APT-05761A). Naples, FL; 2022.
5. Berthiaume MJ, Raynauld JP, Martel-Pelletier J, et al. Meniscal tear and extrusion are strongly associated with progression of symptomatic knee osteoarthritis as assessed by quantitative magnetic resonance imaging. *Ann Rheum Dis.* 2005;64(4):556-563. doi:10.1136/ard.2004.023796

This 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 and/or outcomes.

Arthrex Manufacturer, Authorized Representative and Importer information: eIFU - Arthrex

U.S. patent information

arthrex.com