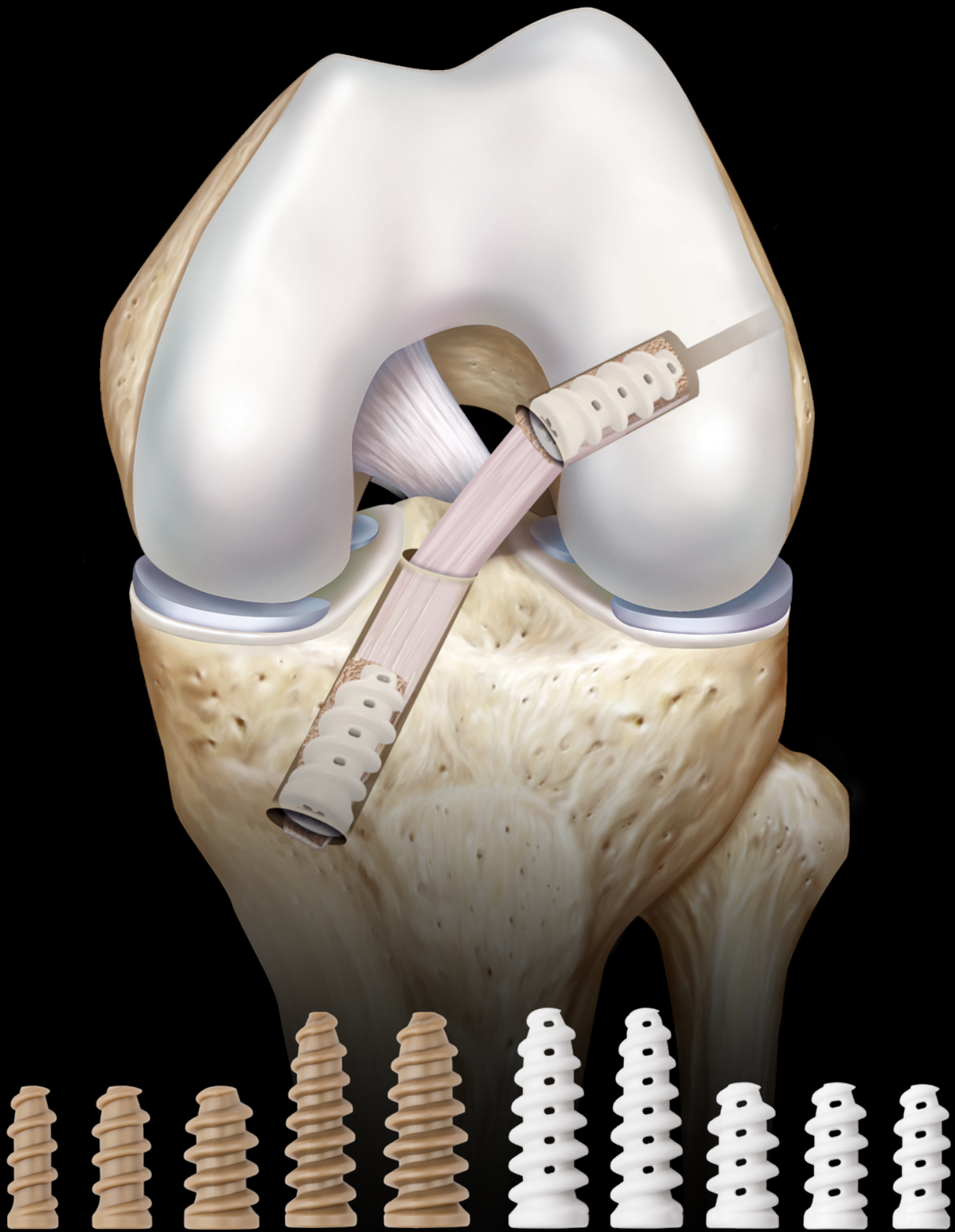


FastThread™ Interference Screws

A New Turn in ACL Fixation



Arthrex® 

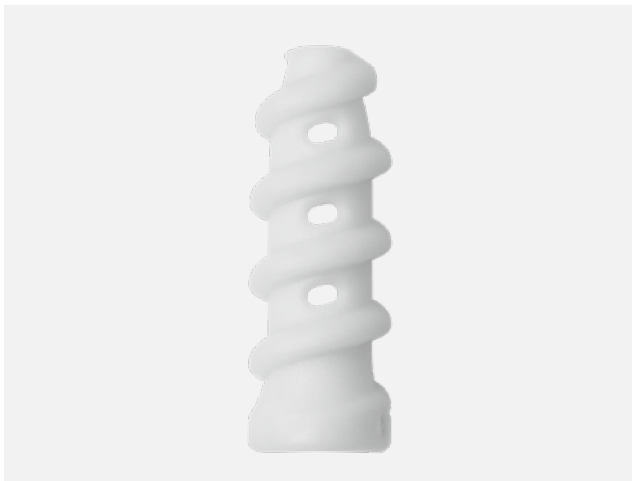
FastThread™ Interference Screw

The family of FastThread interference screws is made of proven, reliable materials and was engineered to improve screw performance during insertion and the early postoperative period.¹

- **Faster insertion:** Prominent leading thread and large thread pitch facilitate screw engagement and advancement

- **Strength:** Optimized screw threads improve pullout strength compared to longer screws of the same diameter¹
- **Graft protection:** Threads are designed to minimize friction against the graft while the rounded end is intended to protect the graft at the aperture (20 mm screws are packaged with an insertion sheath)

FastThread™ BioComposite Interference Screw



- **Proven outcomes:** 98 % resorption and replacement with bone with no tunnel widening at 2 to 5 years²
- **Less material:** Vented sidewalls and screw geometry decrease material by 22 % without losing strength^{1,3}
- **Solid clinical history:** With more than a decade of clinical use and millions of implantations,⁴ Arthrex's proprietary BioComposite material has withstood the test of time

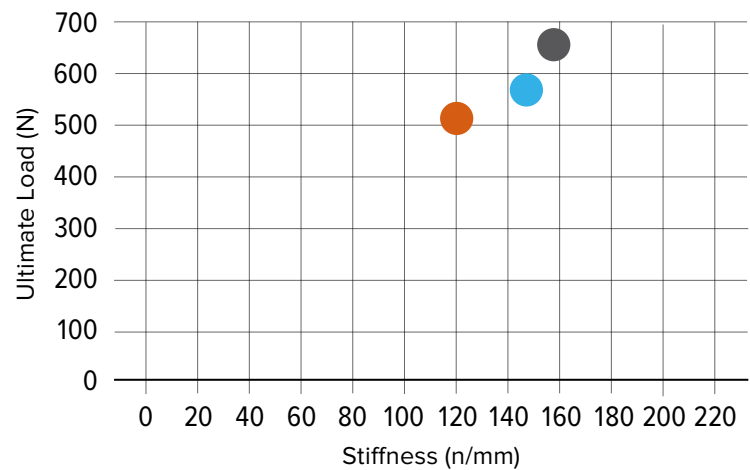
FastThread™ PEEK Interference Screw



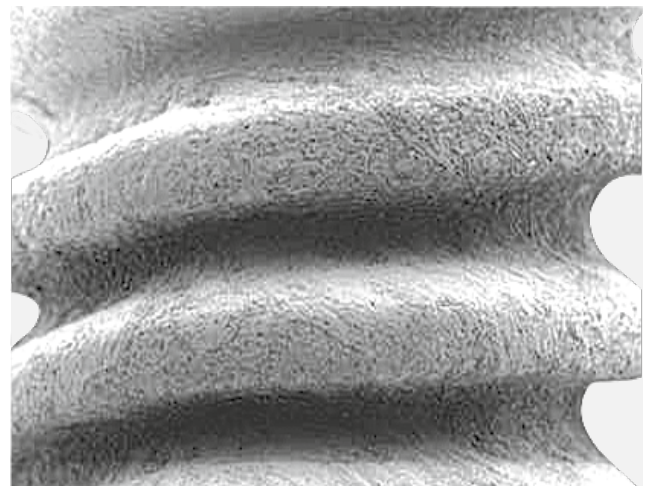
- **PEEK-OPTIMA® material:** Affords advantages of metal screw insertion qualities but without visible hardware on imaging^{5,6}

Biomechanical Strengths¹

- S&N Regenesorb screw 8 mm × 20 mm
- Arthrex BioComposite screw 8 mm × 23 mm
- Arthrex FastThread screw 8 mm × 20 mm

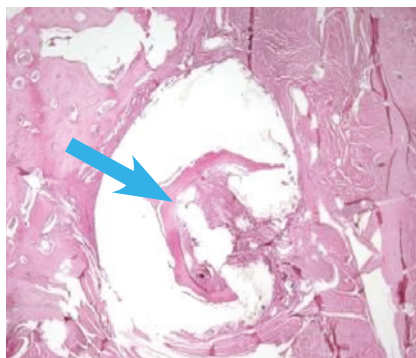


BioComposite Material

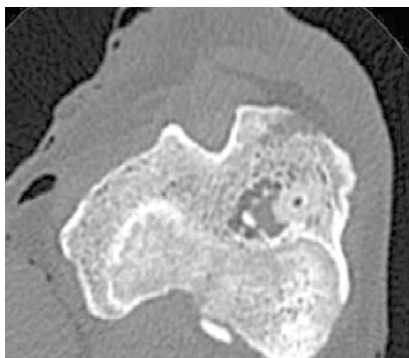


- FastThread interference screws are made of time-tested material with more than a decade of clinical history and successful implantation.^{4,7}
- Biphasic calcium phosphate (BCP) is a known osteoconductive material that provides both the superior balance of osteoblast adhesion and proliferation over hydroxyapatite (HA) and beta-tricalcium phosphate (β -TCP). This results in controlled solubility and the release of calcium ions, promoting more natural and balanced osteogenesis.⁷
- Amorphous poly (L-lactide-co-D, L-lactide) acid (PLDLA) absorbs predictably over time and greatly reduces the chance of osteolytic lesions observed in rapidly degrading screws with PGA-type polymers. PLDLA has a long track record as a safe, biodegradable polymer.⁶
- The BioComposite interference screw, which is comprised of 30 % biphasic calcium phosphate (BCP) and 70 % poly (L-lactide-co-D, L-lactide) acid (PLDLA), is intended for use as a fixation device for bone-patellar tendon-bone (BTB) and soft-tissue grafts used during ACL and PCL reconstructions.

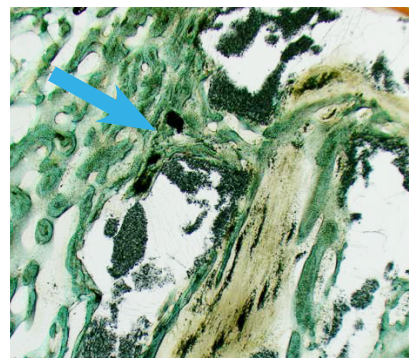
Histological (a)



CT (b)



Bony Ingrowth (c)



Histologic **(a)** and CT **(b)** images of animal ACL graft constructs show that the bioComposite interference screw has new bone (at the arrow) within the screw site and is well-integrated into the surrounding bone. Bony ingrowth **(c)** is seen through screw vents and cannulation at 4 months.⁸

FastThread™ BioComposite Interference Screws



20 mm Length Screw

- Available in 6 mm to 10 mm diameters
- Ideal for patella tendon graft fixation



30 mm Length Screws

- Available in 7 mm to 12 mm diameters
- Ideal for tibial fixation of soft-tissue and patella tendon grafts

FastThread™ PEEK Interference Screws



20 mm Length Screws

- Available in 6 mm to 10 mm diameters
- Ideal for patella tendon graft fixation

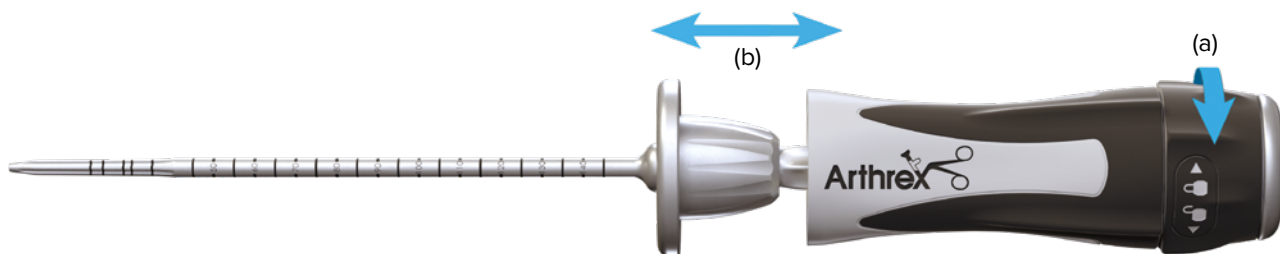


30 mm Length Screws

- Available in 7 mm to 12 mm diameters
- Ideal for tibial fixation of soft-tissue and patella tendon grafts

SlapDriver Screwdriver Features

The SlapDriver interference screwdriver family was designed to combine the technology and reliability of our hexalobe, trilobe, and quick connect ratcheting screwdrivers with the convenience of a built-in slap-hammer mechanism to make driver removal easier and faster.



(a) The SlapDriver screwdriver features a convenient twist-lock knob on the back of the handle to access the slap hammer feature.

(b) When the lock feature is disengaged, the slap hammer mechanism will be free to piston, aiding in removal of the driver from an implanted screw.

Instrumentation


FastThread interference screws were developed with Arthrex's unique tapered hexalobe design along the entire length of the screw to maximize transfer of torque and reduce screw stripping. The 7 mm to 12 mm screws can be used with existing BioComposite screwdrivers.

Note: 6 mm FastThread screw uses the trilobe driver seen below (AR-4019D-1). FastThread taps and drivers are available in fixed handle, quick connect, and flexible options. Drivers are available in a one-size-fits-all design and are 20 mm specific.







Instrumentation (Cont)


Handles, Quick Connect

| | | |
|---|---|------------------|
|  | SlapDriver, ratcheting quick connect handle | AR-1999SR |
|---|---|------------------|



Drivers, Quick Connect

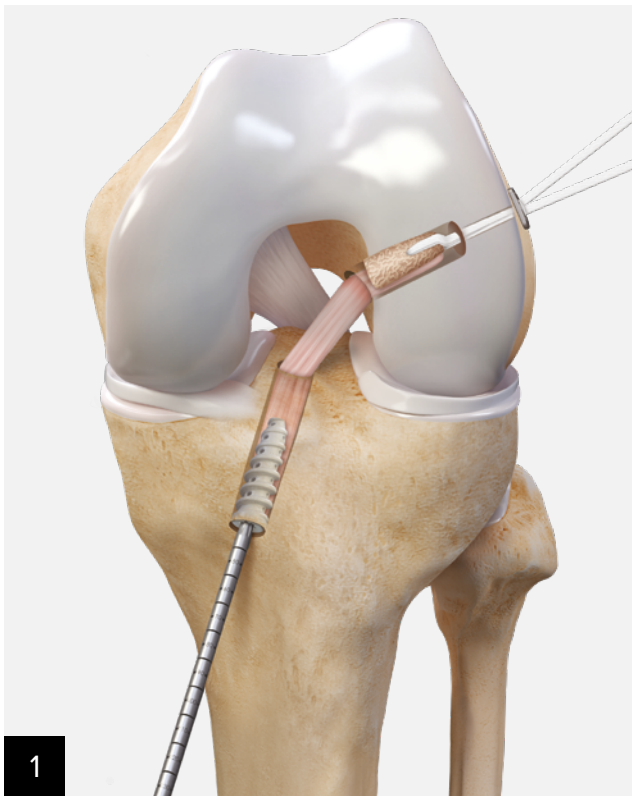
| | | |
|---|---|--------------------|
|  | Quick connect driver, BioComposite interference screw (for 20 mm screws only) | AR-1996CD-1 |
|  | Quick connect driver shaft, 6 mm | AR-4019D-1 |
|  | Quick connect driver shaft, 20 mm (for 20 mm screws only) | AR-4020D-1 |
|  | Flexible quick connect screwdriver (compatible with 20 mm length screws) | AR-4020DF |

Taps, Fixed Handle

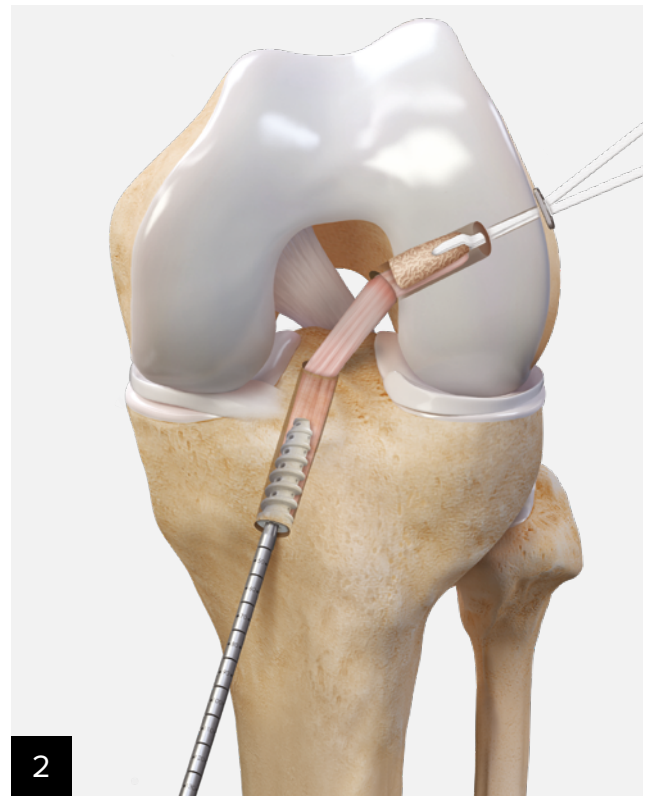
| | | |
|---|-------------------------------------|--------------------------|
|  | FastThread™ screw tap, 6 mm - 10 mm | AR-4020HT-06 – 10 |
|---|-------------------------------------|--------------------------|

Taps, Quick Connect

| | | |
|---|--|--------------------------|
|  | Quick connect FastThread™ screw tap, 6 mm - 10 mm | AR-4020T-06 – 10 |
|  | Flexible quick connect FastThread™ screw tap, 6 mm - 10 mm | AR-4020TF-06 – 10 |

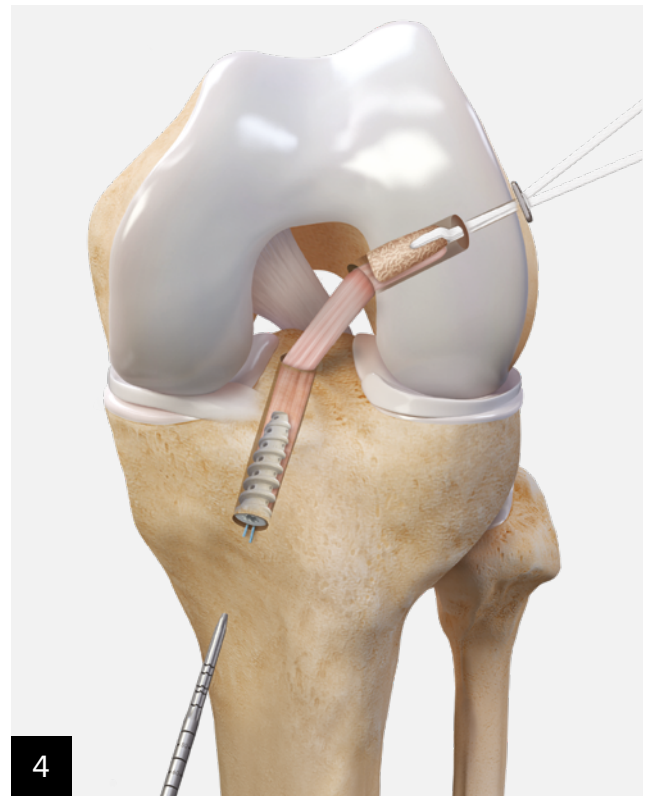
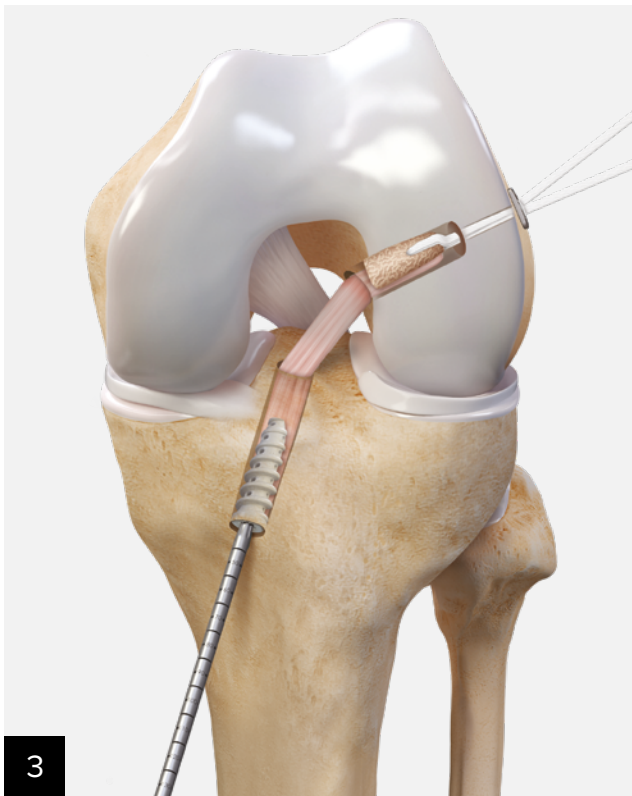


Insert the interference screw. If the driver tip is stuck in the screw, proceed with the slap hammer technique using the SlapDriver.



Unlock the slap hammer mechanism by twisting the knob on the back of the SlapDriver handle counterclockwise.





Forcefully slide the handle away from driver tip in a slap-hammer-style fashion.

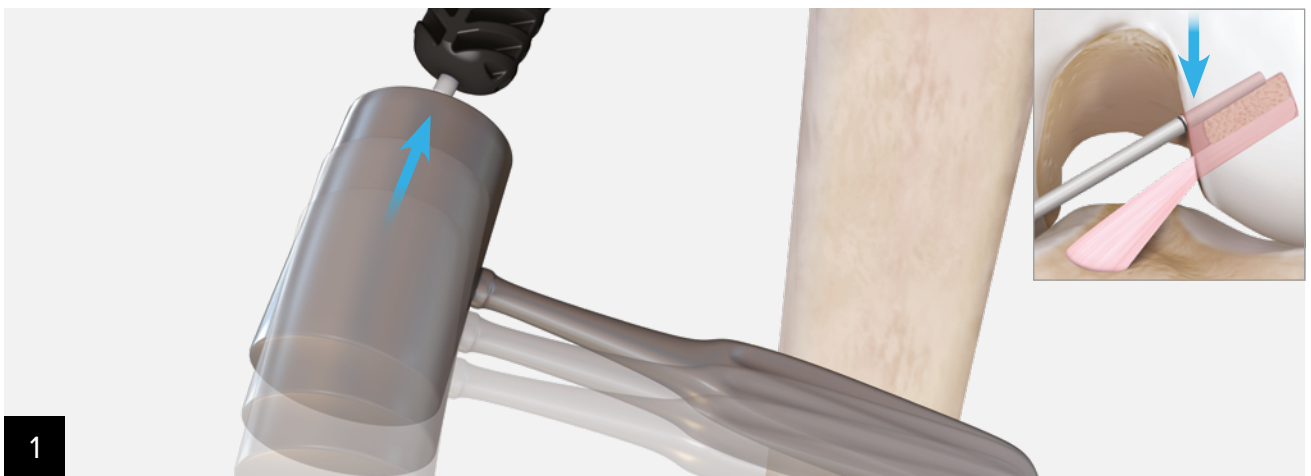
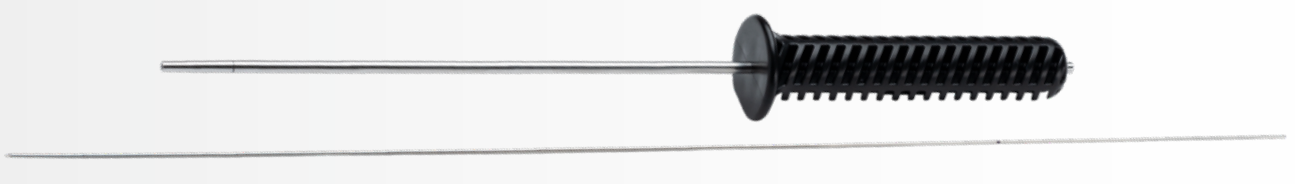


Repeat as needed until SlapDriver screwdriver is removed.

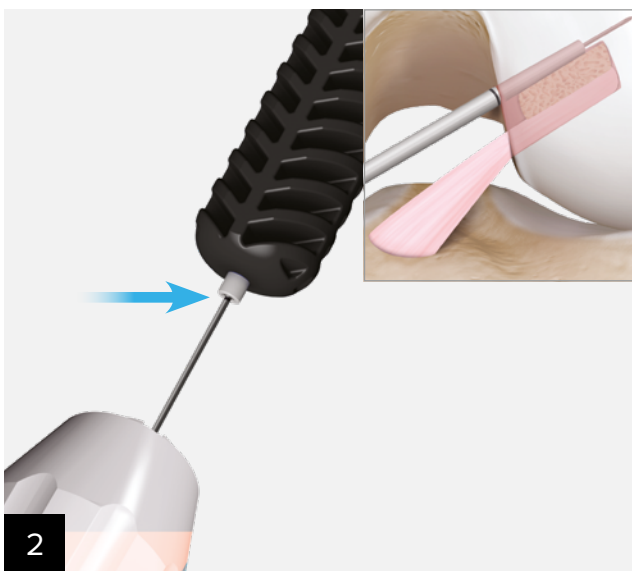


Interference Screw Insertion Kit Technique

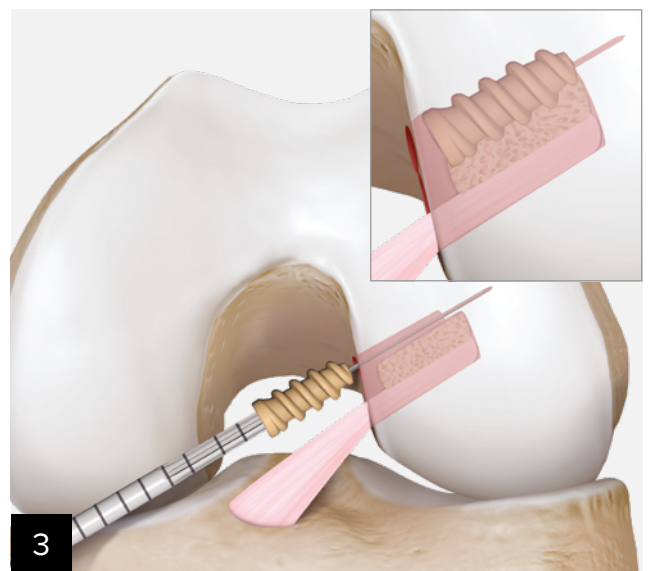
FastThread interference screws are also compatible with the Interference Screw Insertion Kit, which was developed to improve interference screw insertion trajectory and stability. This new tunnel notching system is offered as a disposable kit to improve convenience and reliability during anterior cruciate ligament (ACL) reconstruction.



The dilator creates a consistent 20 mm deep channel for the FastThread screw to follow along the socket.



Drill the trocar-tip guide wire through the dilator and into bone, affording stability of the wire during screw insertion.



The PEEK FastThread screws can be inserted directly over the guide wire, but it is recommended to tap the BioComposite screws.

Ordering Information

Implants

| Product Description | Item Number |
|--|------------------|
| FastThread™ PEEK Interference Screws | |
| 6 mm × 20 mm (used with 6 mm driver) | AR-4020P-06 |
| 7 mm - 10 mm × 20 mm screw | AR-4020P-07 – 10 |
| 7 mm - 12 mm × 30 mm screw | AR-4030P-07 – 12 |
| FastThread™ BioComposite Interference Screws | |
| 6 mm × 20 mm (used with 6 mm driver) | AR-4020C-06 |
| 7 mm - 10 mm × 20 mm screws | AR-4020C-07 – 10 |
| 7 mm - 12 mm × 30 mm screws | AR-4030C-07 – 12 |

Instruments

| Product Description | Item Number |
|--|--------------|
| Ratcheting SlapDriver | |
| SlapDriver, ratcheting quick connect handle | AR-1999SD |
| Quick Connect Drivers | |
| Quick connect driver, for 20 mm and 30 mm screws (hexalobe) | AR-1996CD-1 |
| Quick connect driver, for 20 mm length screws only (hexalobe) | AR-4020D-1 |
| Quick connect driver, extended-length shaft (hexalobe) | AR-1996CDL-1 |
| Flexible quick connect driver, for 20 mm length screws only (hexalobe) | AR-4020DF |
| Quick connect driver, for 6 mm diameter screws only (trilobe) | AR-4019D-1 |

Taps

| Product Description | Item Number |
|---|-------------------|
| Fixed handle taps, 6 mm - 10 mm | AR-4020HT-06 – 10 |
| Quick connect tap shafts, 6 mm - 10 mm | AR-4020T-06 – 10 |
| Flexible quick connect tap shafts, 6 mm - 10 mm | AR-4020TF-06 – 10 |

Instrument Case

| Product Description | Item Number |
|---------------------|-------------|
| Instrument case | AR-1996C |

Accessories

| Product Description | Item Number |
|---|------------------|
| Tunnel notcher for bio-interference screws | AR-1845 |
| Cannulated dilator, for 23 mm BioComposite screws, 6 mm - 8 mm | AR-1377C-06 – 08 |
| BioComposite interference screwdriver shaft, quick connect, long | AR-1996CDL-1 |
| Reamer handle and pin puller | AR-1415 |
| Nitinol guide pin for bio-interference screws, 1.1 mm | AR-1249 |
| Interference screw insertion kit, includes dilator and 1.1 mm trocar-tip guide wire | AR-1249TK |

Products advertised in this brochure/surgical technique guide may not be available in all countries. For information on availability, please contact Arthrex Customer Service or your local Arthrex representative.

References

1. Arthrex, Inc. LA1-00099-EN_A. Naples, FL; 2018.
2. Scrivens B, Kluczynski MA, Fineberg MS, Bisson LJ. Computed tomography imaging of biocomposite interference screw after ACL reconstruction with bone-patellar tendon-bone graft. *Orthop J Sports Med.* 2021;9(5):23259671211006477. doi:10.1177/23259671211006477
3. Arthrex, Inc. Data on file (Engineering department calculation of volume). Naples, FL; 2018.
4. Arthrex, Inc. LA1-0199-EN_F. Naples, FL; 2020.
5. Kulczycka P, Larbi A, Malghem J, Thienpont E, Vande Berg B, Lecouvet F. Imaging ACL reconstructions and their complications. *Diagn Interv Imaging.* 2015;96(1):11-19. doi:10.1016/j.diii.2014.04.007
6. Wilde J, Bedi A, Altchek DW. Revision anterior cruciate ligament reconstruction. *Sports Health.* 2014;6(6):504-518. doi:10.1177/194173811350091
7. Arthrex, Inc. LA1-0150-EN_E. Naples, FL; 2018.
8. Arthrex, Inc. LA1-00096-EN_A. Naples, FL; 2018.



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.

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