

The Arthrex 5 mm and 6.5 mm Bio-Corkscrews are threaded bioabsorbable suture anchors featuring a braided suture eyelet molded into the implant. This is a patented design that eliminates eyelet degradation concerns and loss of fixation strength during the critical tissue healing period. The low coefficient of drag between the suture eyelet and the attached suture improves the performance of sliding knots and eliminates abrasion to the attached suture. The Bio-Corkscrew is ideal for open or arthroscopic soft tissue to bone repairs and comes preloaded with two #2 nonabsorbable sutures. The anchor is available with or without needles and with Tevdek®, FiberWire® and TigerTail™ suture. The implant is molded from PLDLA, a primarily amorphous (noncrystalline) bioabsorbable copolymer.

Surgical Technique

The Bio-Corkscrew is inserted into bone following pilot hole preparation. A Bio-Corkscrew Punch is initially malleted at a 45° “Deadman’s” angle and advanced until the laser line is below the bone surface.

In situations when dense cortico-cancellous bone is encountered, the pilot hole is further prepared by hand with the Bio-Corkscrew Punch/Tap until the laser line of the Punch/Tap is threaded below the bone surface.

The Bio-Corkscrew is then inserted into the pilot hole until the laser line on the driver shaft is below the bone surface.

The 6.5 mm Bio-Corkscrew is preferable to the 5 mm version where poor quality bone may affect implant security and may be inserted without enlarging the pilot hole diameter.

Arthroscopic suture passing instruments including the BirdBeak™, Penetrator™ Suture Retriever and SutureLasso™ are available to facilitate arthroscopic techniques.

Maximum Performance

The threaded implant design and small core diameter of the Bio-Corkscrew provide a mean of 84 pounds of pull-out strength.

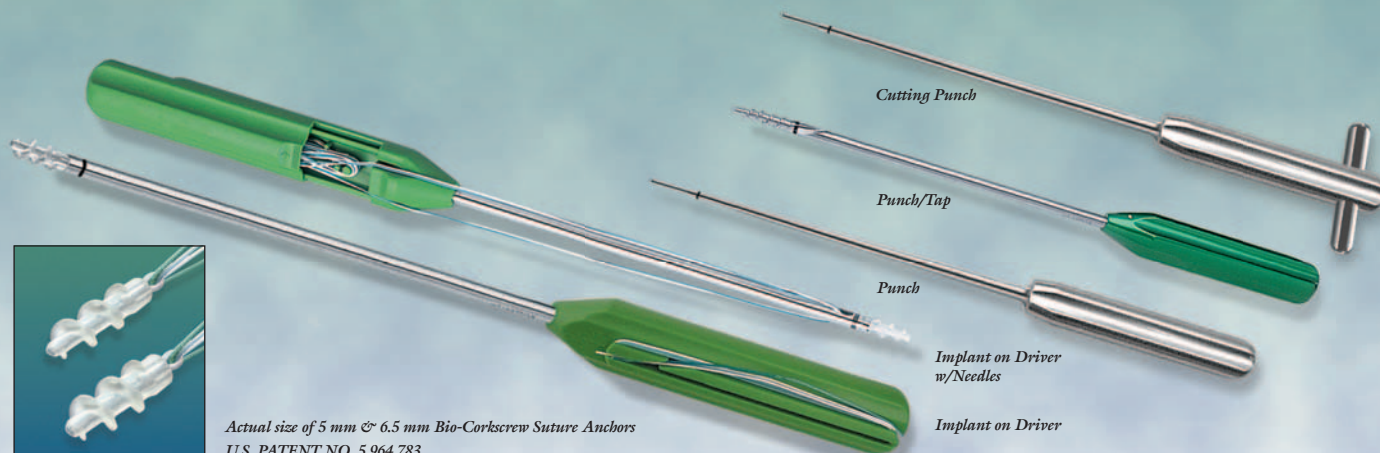
Published studies suggest that cyclical loading of an anchor construct during the postoperative healing period may have a detrimental effect to the attached suture causing damage and breakage and the potential for clinical failure. This may be further exacerbated by the angle of the suture in three possible orientations, with respect to the inserted axis of the anchor. In a recently published article the unique, patented suture eyelet design of the Bio-Corkscrew was able to show better performance and a statistically significant decrease in suture abrasion in any of the three orientations compared to other commercially available suture anchors.

Implant Degradation



In vivo animal studies (goat femurs) illustrate inert degradation of the Bio-Corkscrew at 12 weeks. Pull-out testing of these anchors shows that they maintain up to 94% of “time zero” strength at 12 weeks and completely absorb within 12 to 16 months.

The photograph taken at 12 weeks shows a cross-sectional view of a 5 mm Bio-Corkscrew (top) and a retrieved implant for comparison (bottom).



Cutting Punch

Punch/Tap

Punch

Implant on Driver w/Needles

Implant on Driver



Actual size of 5 mm & 6.5 mm Bio-Corkscrew Suture Anchors
U.S. PATENT NO. 5,964,783

Features/Benefits

Manufactured from PLDLA poly(L-lactide-co-D, L-lactide)

- Amorphous material is biocompatible
- Will be replaced by bone over time
- Not visible on radiographs
- Won't interfere with MRI or CT scans
- Simplifies revisions

Implant is 5 or 6.5 mm Threaded Design

- Superior fixation strength
- Simple insertion

Implant Eyelet is Braided Suture

- Eliminates suture abrasion/breakage
- Accommodates up to four #2 braided sutures
- Maintains suture eyelet strength throughout most of the degradation cycle

Implant Preloaded w/#2 Sutures

- Enhances suture management
- Provides tissue fixation options
- Also available with FiberWire and TigerTail high strength suture

Implants:

5 mm x 17.9 mm

Bio-Corkscrew Suture Anchor, w/two #2 FiberWire	AR-1920BF
Bio-Corkscrew Suture Anchor	AR-1920B
Bio-Corkscrew Suture Anchor w/Needles, w/#2 FiberWire	AR-1920BNF
Bio-Corkscrew Suture Anchor w/Needles	AR-1920BN
Bio-Corkscrew Suture Anchor, w/two #2 TigerTail	AR-1920BFT
Bio-Corkscrew w/NeedlePunch Needles, 5 mm	AR-1920BNP

6.5 mm x 17.9 mm

Bio-Corkscrew Suture Anchor, w/two #2 FiberWire	AR-1925BF
Bio-Corkscrew Suture Anchor	AR-1925B
Bio-Corkscrew Suture Anchor w/Needles, w/#2 FiberWire	AR-1925BNF
Bio-Corkscrew Suture Anchor w/Needles	AR-1925BN
Bio-Corkscrew w/NeedlePunch Needles	AR-1925BNP

Accessories:

Bio-Corkscrew Cutting Punch, 5 mm	AR-1920CPB
Bio-Corkscrew Combo Punch/Tap	AR-1920PTB
Bio-Corkscrew Punch, 5 mm	AR-1920PB



Innovative Solutions in Minimally Invasive Orthopaedics

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Bio-Corkscrew™ Suture Anchor

