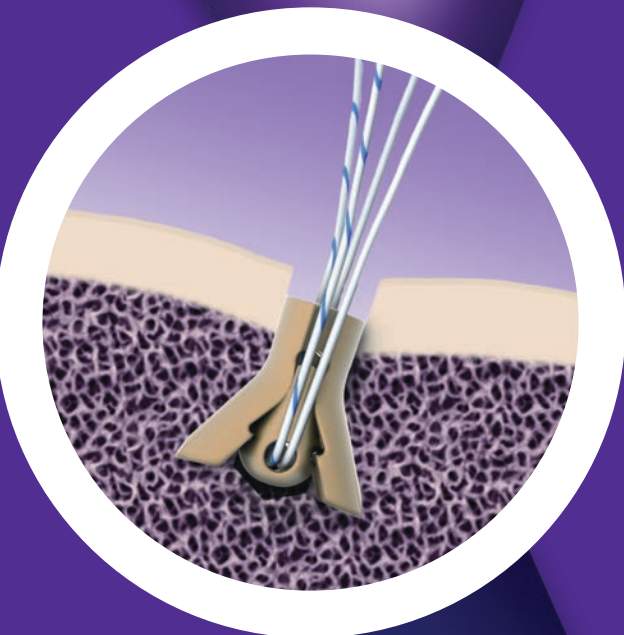


PRODUCT INFORMATION

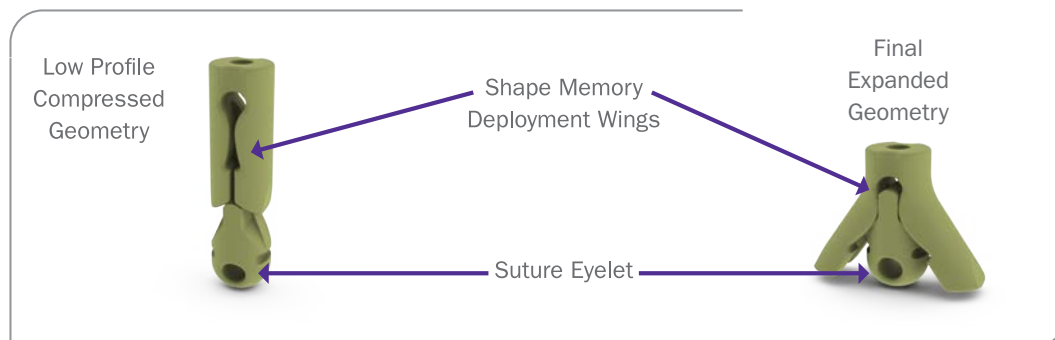
FEATURING SHAPE MEMORY
PEEK ALTERA® TECHNOLOGY



MORPHIX®
SUTURE ANCHOR

**One shape for easy insertion. Another shape for secure fixation.
A simple way to trigger the transformation.**

Now that's genius.



DESIGN HIGHLIGHTS

Features dynamic wings that deploy sub-cortically and expand 200%.

The design of the Morphix Suture Anchor is based on university research into anchor design and performance.¹ The Morphix Suture Anchor deploys dynamic wings with a high bearing area into the cancellous bone beneath the cortical shelf for improved device fixation.

Maintains fixation strength during and after cyclic loading.

Active rehabilitation can cause anchor migration and loosening which may lead to clinical failure of the repair. Laboratory testing has shown that traditional anchor pullout can occur under 1,000 cycles at a load less than 50% of initial pullout strength.² The Morphix Suture Anchor responds positively to cyclic loading due to its dynamic geometry and stored shape memory strain. After implantation, cyclic loading stimulates the Morphix Suture Anchor to attain its permanent, fully open "zero-strain" state. This results in continued wing expansion and retention of initial pullout strength.

Simplifies device insertion and expansion.

The shape memory Morphix Suture Anchor is delivered pre-compressed in a low-profile geometry that inserts easily into the surgical site. The Morphix Suture Anchor is rapidly deployed utilizing a simple and reproducible tap-in technique.

Reduces common failure modes.

Strong one-piece PEEK Altera suture eyelet eliminates the risk of breakage often associated with resorbable eyelet materials and suture loop eyelet designs. The design of the Morphix Suture Anchor efficiently distributes stresses and maintains implant integrity.

Offers many sizes and options to meet every clinical situation.

The Morphix Suture Anchor is available in 2.5 mm, 3.5 mm, 4.5 mm and 5.5 mm diameters and in a range of suture and needle configurations.



¹ Yakacki, C.M., et al., Bearing area: A new indication for suture anchor pullout strength? Journal of Orthopaedic Research, 2009. 27(8): p. 1048-1054.

² Roth, C.A., et al., Failure properties in the glenoid and the effects of cortical thickness. Arthroscopy, 1998. 14(2): p. 186-91.

The Morphix® Suture Anchor features a low-profile insertion geometry with 200% wing expansion for secure fixation.

Morphix Suture. A Strong Choice.

The Morphix Suture Anchor is preloaded with a choice of strong, non-absorbable suture composed of ultra-high molecular weight polyethylene (UHMWPE).

Morphix Sutures possess:

- Outstanding tensile and knot break strength
- Nonabrasive, silk-like feel that is gentle on tissue and gloves
- Flexibility and pliability
- A unique, flatter profile that allows smaller knots and more effective locking against the previous knot
- Outstanding knot security with precise knot placement and better tie down
- Clear color coding in multi-strand options that allows for easy identification of individual sutures
- Available double-loaded with taper point half circle needles

PEEK Altera®. It’s smarter than your average PEEK.

MedShape’s proprietary PEEK Altera is the world’s first shape memory PEEK (polyetheretherketone).

Devices manufactured from PEEK Altera can “remember” more than one shape. PEEK Altera devices can be compressed into a compact temporary geometry for easy insertion into the target surgical site and, with the application of minimal force, be transformed into the optimum geometry for fixation without loss of mechanical integrity.



PEEK Altera is:

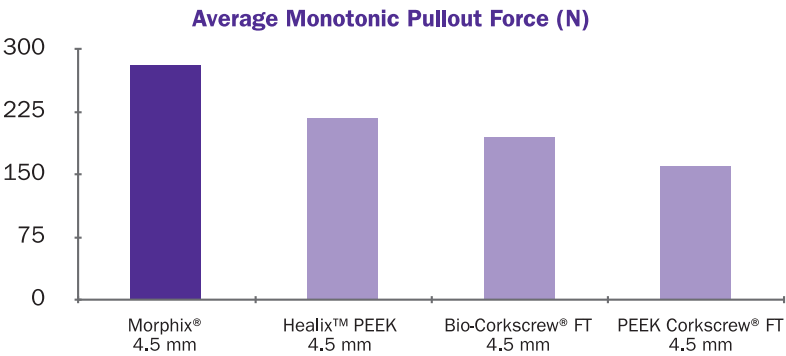
- Strong, yet highly deformable
- Biocompatible
- Biostable
- Radiolucent
- MRI safe

“The Morphix Suture Anchor has been a welcomed addition to my practice. Its ability to maintain high fixation strength under cyclic loading is unique and gives me the confidence to rehabilitate my patients sooner after surgery.”

– Samuel B. Adams, MD

Duke University Medical Center, Durham, NC

PERFORMANCE



It’s Strong.

In monotonic pullout testing, the Morphix Suture Anchor demonstrated superior fixation strength versus competitive anchor designs.

Data on File, MedShape, 2010.

Bone Analogue — Cancellous (osteopenic model)

Device	Number Cycles	Original Pullout	Post-Cyclic Pullout	% Original Pullout
Morphix Suture Anchor 2.5 mm	1,000 cycles	18 N	18 N	100%
Morphix Suture Anchor 3.5 mm	1,000 cycles	33 N	33 N	100%
Morphix Suture Anchor 5.5 mm	1,000 cycles	68 N	70 N	103%

Bone Analogue — Cancellous/Cortical (normal model)

Device	Number Cycles	Original Pullout	Post-Cyclic Pullout	% Original Pullout
Morphix Suture Anchor 2.5 mm	1,000 cycles	271 N	281 N	104%
Morphix Suture Anchor 3.5 mm	1,000 cycles	501 N	523 N	104%
Morphix Suture Anchor 5.5 mm	1,000 cycles	587 N	604 N	103%

It Stays Strong.

In cyclic load testing, the Morphix Suture Anchor demonstrated effective retention of initial pullout strength.

“Deadman’s angle”, 45 degrees off axis. 1,000 cycles at 50% average monotonic pullout strength.
Data on File, MedShape, 2010.

ACCESSORY INSTRUMENTATION

Morphix® Procedure Pack

Disposable kit that contains instruments needed to aid in bone tunnel preparation

- Provided in individual sterile packages for easy handling
- Available in 2.5 mm, 3.5 mm, and 4.5 mm sizes
- Sharp teeth on Drill Guide provide secure seating for optimal targeting
- Hard stop on Drill Bits ensures the appropriate tunnel depth



MORPHIX® SUTURE ANCHOR

Part No.	Description
1000-03-225	Morphix, 2.5 mm Diameter, 2 USP #2 Sutures
1000-03-235	Morphix, 3.5 mm Diameter, 2 USP #2 Sutures
1000-04-125	Morphix, 2.5 mm Diameter, 1 USP #0 Suture Double Armed with Tapered Needles
1000-04-235	Morphix, 3.5 mm Diameter, 2 USP #0 Sutures Double Armed with Tapered Needles
1000-04-245	Morphix, 4.5 mm Diameter, 2 USP #2 Sutures Double Armed with Tapered Needles
1000-04-255	Morphix, 5.5 mm Diameter, 2 USP #2 Sutures Double Armed with Tapered Needles

INSTRUMENTS

Part No.	Description
2000-01-000	Instrument Caddy
2000-03-025	2.5 mm Bone Punch Instrument
2000-03-035	3.5 mm Bone Punch Instrument
2000-03-045	4.5 mm Bone Punch Instrument
2000-13-023	Midi Fishmouth Guide
2000-14-023	Midi Obturator
2000-10-025	2.5 mm Slimline Drill Bit
2000-10-035	3.5 mm Slimline Drill Bit
2000-10-045	4.5 mm Slimline Drill Bit

SINGLE USE ACCESSORIES

Part No.	Description
1000-10-025	2.5 mm Procedure Pack, Sterile
1000-10-035	3.5 mm Procedure Pack, Sterile
1000-10-045	4.5 mm Procedure Pack, Sterile



CAUTION: Federal (USA) law restricts this device to sale by or on the order of a physician.
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For further product information or to arrange a product demonstration, please contact your local MedShape representative or call Customer Service at 877-343-7016. You can also visit www.medshape.com.



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