



+ Redefining healing potential

Open architecture anchor facilitates healing.^{1,2}
An integral part of Advanced Healing Solutions.

Smith+Nephew

HEALICOIL [◇]
REGENESORB [◇]
Suture Anchor

HEALICOIL
KNOTLESS
Suture Anchor





“The real advantage of the [HEALICOIL] open architecture is that the stem cells from the bone marrow can reach the bone-tendon interface to promote healing where it is most needed.”

Jan Vonhoegen, MD
Specialist for Orthopaedics
and Trauma Surgery

HEALICOIL[®] Suture Anchor



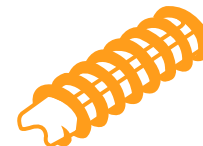
Potential biologic healing advantage¹

Open architecture anchor may facilitate healing by allowing access of bone marrow and associated stem cells to the repair site²



May facilitate greater increase in rotator cuff thickness vs competitor¹

Mean rotator cuff thickness at six weeks was significantly greater compared to Healix Advance™ Suture Anchor (0.59cm vs 0.48cm; p=0.0074)¹



Open architecture design

- Open architecture is designed to reduce the amount of implanted material in the shoulder compared to traditional, solid-core anchors.
- Superior bone ingrowth surrounding the anchor compared to non-vented anchors six months after rotator cuff repair²
- Increasing bone density around the anchor may contribute to higher pullout strength and offer the potential for reduced failure²

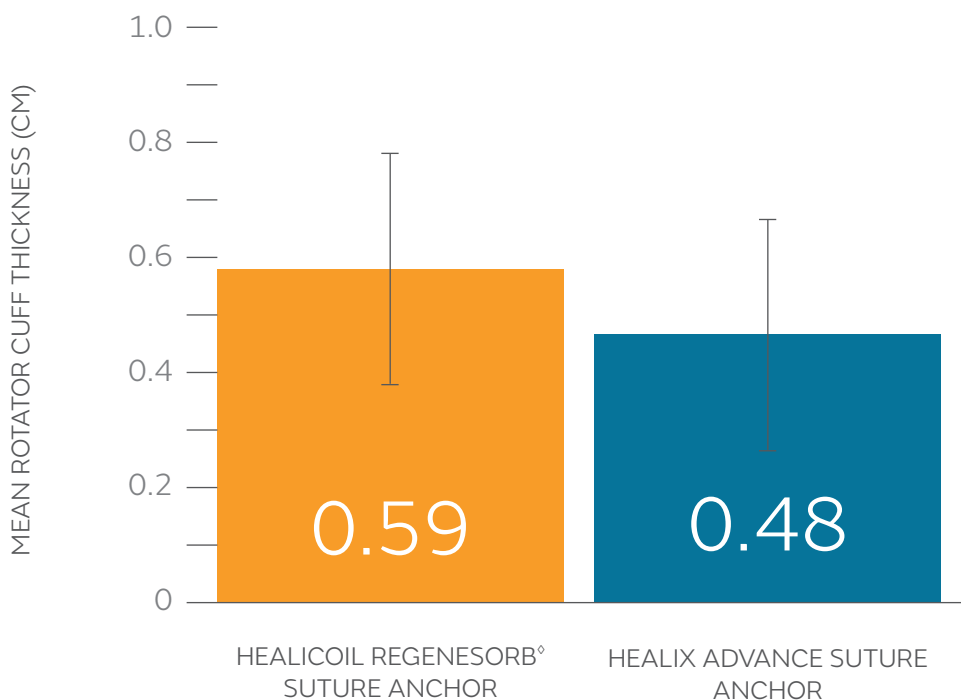


Figure. Mean (\pm standard deviation) rotator cuff thickness at 6 weeks.¹



HEALICOIL[◇] KNOTLESS Suture Anchor

✦ **Least amount of suture displacement during cyclic loading vs competitors⁴**

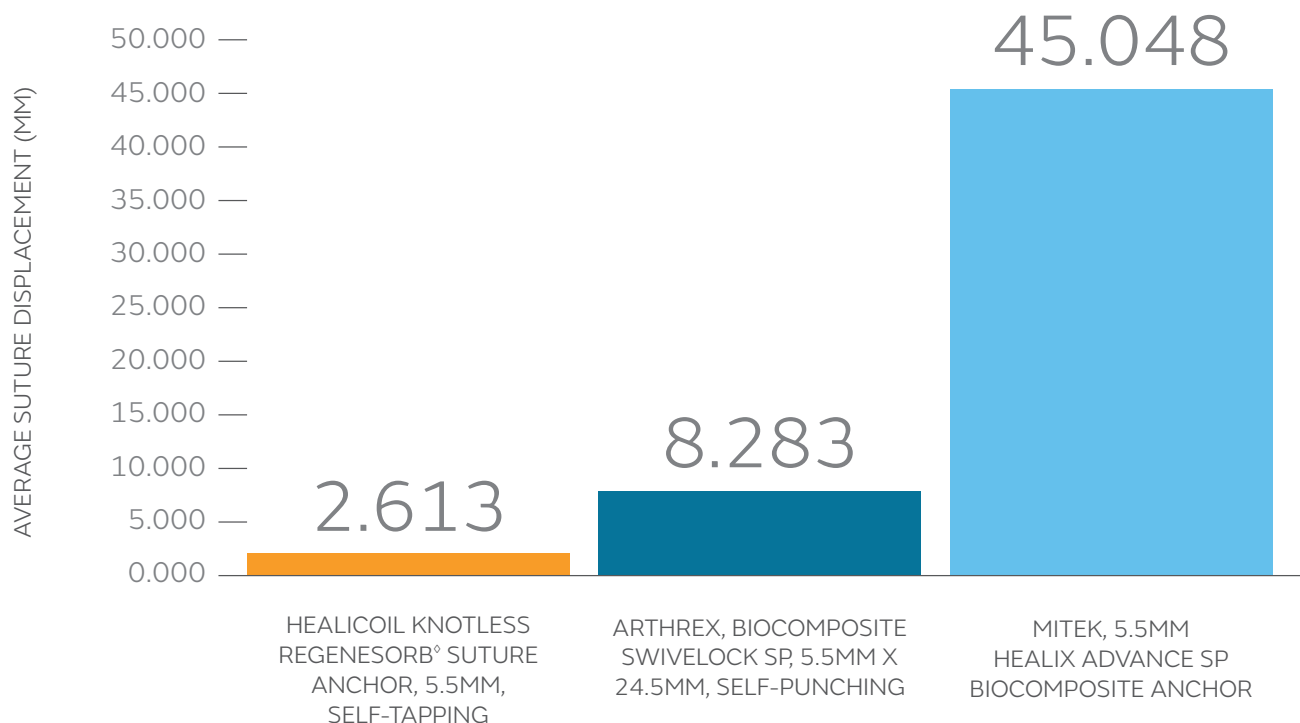
69%

less suture displacement than Arthrex BioComposite SwiveLock[®] 5.5mm Self-Punching (SP) after cyclic loading for 500 cycles*

94%

less suture displacement than Healix Advance[™] 5.5mm SP Biocomposite Anchor after cyclic loading for 500 cycles**

AVERAGE SUTURE DISPLACEMENT AFTER POSTOPERATIVE CYCLIC LOADING (MM)



* As demonstrated in benchtop testing; p = 0.002

** As demonstrated in benchtop testing; p < 0.001; All Healix Advance 5.5 mm SP Biocomposite Anchors failed to complete the cyclic loading due to suture slipping within the anchor construct under the maximum cyclic load of 45 N

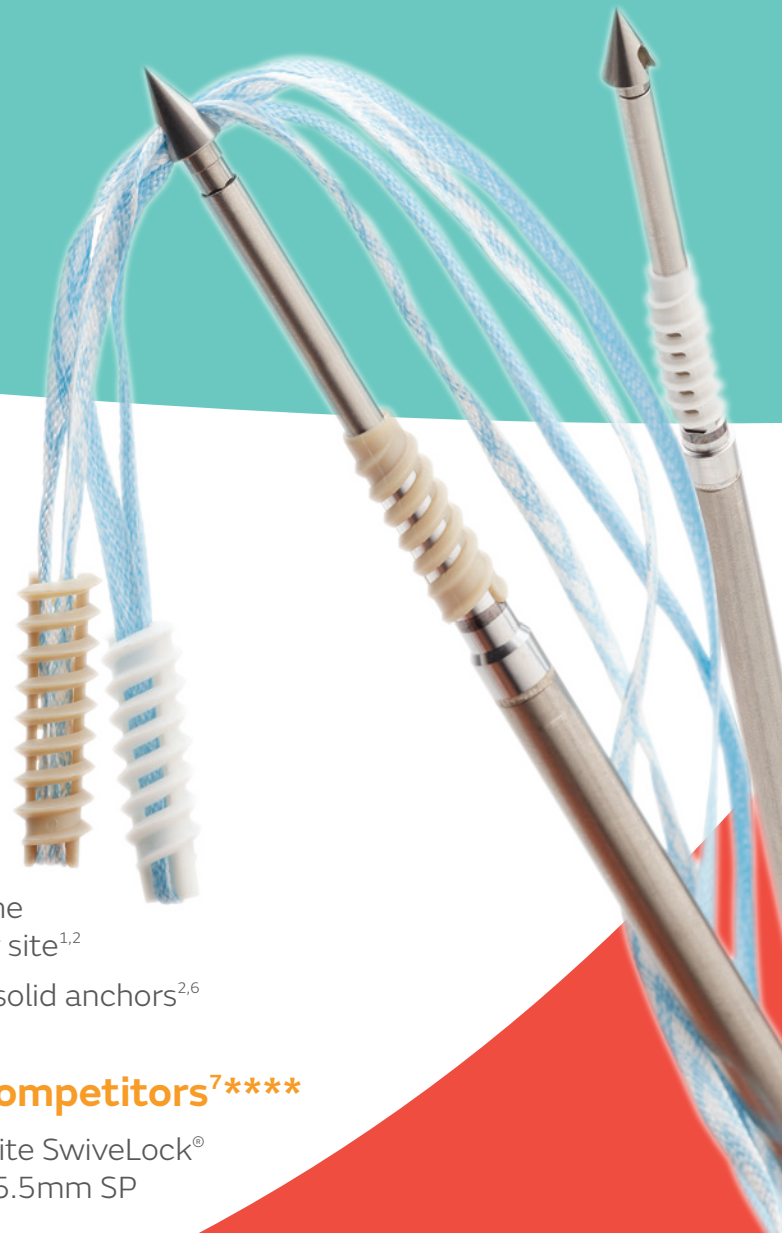
+ Proven internal locking mechanism⁵

By descending a plug in the distal implant, the suture is securely locked in place providing an additional point of fixation***



+ Most open architecture design vs competitors^{7***}

- Three times more open than Arthrex BioComposite SwiveLock® 4.75mm SP⁷
- Four times more open than Arthrex BioComposite SwiveLock® 5.5mm SP⁷
- May facilitate healing by allowing access of bone marrow and associated stem cells to the repair site^{1,2}
- Shown to facilitate better bone ingrowth than solid anchors^{2,6}



+ Least amount of foreign material vs competitors^{7****}

Less material volume compared to Arthrex BioComposite SwiveLock® 4.75mm SP (20%), Arthrex BioComposite SwiveLock® 5.5mm SP (40%) and Healix Advance™ 5.5mm SP Biocomposite Anchor (62%).⁷



“The HEALICOIL anchor leads to more robust healing of that tendon to the bone.”

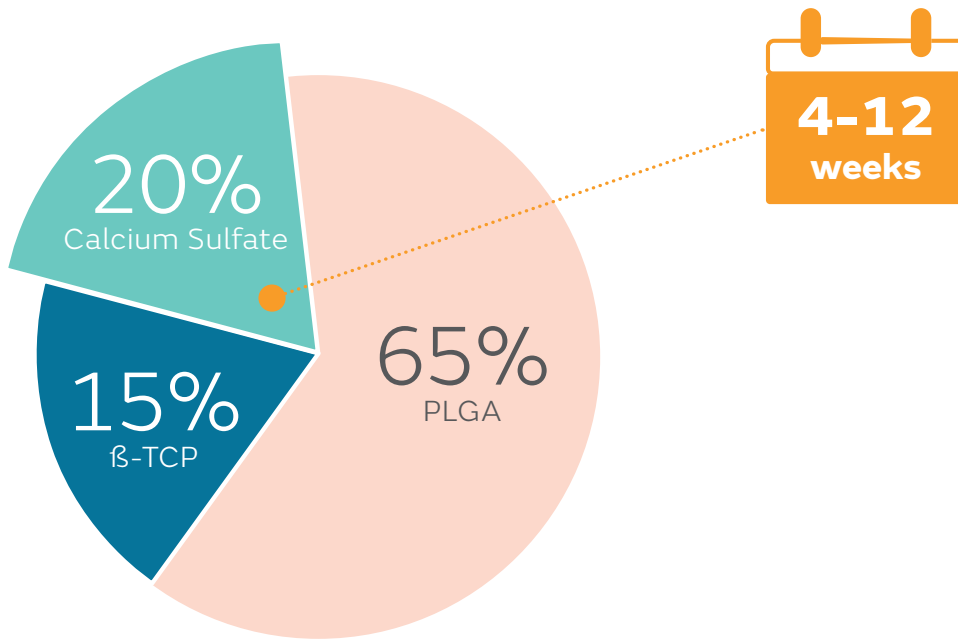
Ian Lo, MD FRCS(C)
Assistant Professor,
University of Calgary

*** As demonstrated in benchtop testing

**** Compared to Arthrex, BioComposite SwiveLock 4.75mm SP, 5.5mm SP and Healix Advance 5.5 mm SP Biocomposite Anchor

REGENESORB[◇] Material

Designed to provide a jump start in bone healing and formation

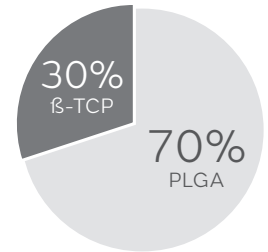


Calcium Sulfate: Works in early healing stages at 4-12 weeks^{3,8,9}

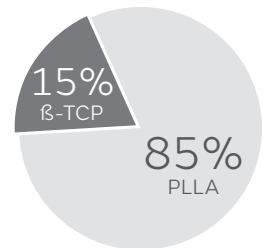
beta-TCP: Sustained bone formation for up to 2 years^{10,11}

PLGA: Comprised of natural products – lactic acid and glycolic acid^{12,13}

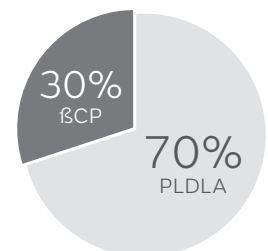
Most biocomposite materials rely solely on the osteoconductive properties of beta-TCP, REGENESORB⁹ material contains two osteoconductive components – beta-TCP and calcium sulfate – which act during different stages in the bone healing process and through different mechanisms of action, physical and biochemical. REGENESORB Material is unique in this regard. No other biocomposite material can claim this.^{8,16,17}



Mitek Biocryl^{™14}



Arthrex[®] BioComposite[™] Anchor¹⁵



Arthrex[®] BioComposite[™] Screw¹⁵



“The REGENESORB material has three different components. In the ultrasound study that we did, you can actually see the bone growing across the coils of that vented anchor – and that’s related to the extra components, providing biologic stimulation.”

Felix H. “Buddy” Savoie III, MD
Chairman of Orthopaedic Surgery;
Chief of Sports Medicine
Tulane University School of Medicine
New Orleans, LA

Ordering information

HEALICOIL® Knotless Suture Anchors	
Reference #	Description
72205135	HEALICOIL Knotless REGENESORB Suture Anchor, 5.5mm
72205136	HEALICOIL Knotless REGENESORB Suture Anchor, 5.5mm, Self-Tapping
72205137	HEALICOIL Knotless PK Suture Anchor, 5.0mm
72205138	HEALICOIL Knotless PK Suture Anchor, 5.0 mm, Self-Tapping

HEALICOIL Knotless Suture Anchor Hole Prep	
Reference #	Description
72201915	Tapered Awl, 3.8mm, reusable
72202621	Tapered Awl, 3.8mm, disposable
72205308	HEALICOIL Knotless Spade Drill, 4.75mm, reusable
72203710	5.5mm Reusable Threaded Dilator
72203952	5.5mm Disposable Threaded Dilator

ULTRATAPE® Suture	
Reference #	Description
72203896	ULTRATAPE Suture (Blue, 6 per box)
72203897	ULTRATAPE Suture (Cobraid Blue, 6 per box)

HEALICOIL PK Suture Anchor Pre-loaded with ULTRATAPE Suture	
Reference #	Description
72203981	HEALICOIL PK 4.5mm Suture Anchor with one ULTRATAPE Suture (Blue)
72203982	HEALICOIL PK 4.5mm Suture Anchor with one ULTRATAPE Suture (Cobraid Blue)
72203983	HEALICOIL PK 5.5mm Suture Anchor with one ULTRATAPE Suture (Blue) and one #2 ULTRABRAID Suture
72203984	HEALICOIL PK 5.5mm Suture Anchor with one ULTRATAPE Suture (Cobraid Blue) and one #2 ULTRABRAID Suture

HEALICOIL PK Suture Anchor Pre-loaded with ULTRABRAID Suture	
Reference #	Description
72203378	HEALICOIL PK 4.5mm Suture Anchor with two #2 ULTRABRAID Sutures (Blue, Cobraid Blue)
72203379	HEALICOIL PK 5.5mm Suture Anchor with two #2 ULTRABRAID Sutures (Blue, Cobraid Blue)
72203380	HEALICOIL PK 5.5mm Suture Anchor with three #2 ULTRABRAID Sutures (Blue, Cobraid Blue, Cobraid Black)

HEALICOIL REGENESORB Suture Anchor Pre-loaded with ULTRATAPE	
Reference #	Description
72203705	HEALICOIL REGENESORB 4.75mm Suture Anchor with one ULTRATAPE Suture (Blue) and one #2 ULTRABRAID Suture
72203697	HEALICOIL REGENESORB 4.75mm Suture Anchor with one ULTRATAPE Suture (Cobraid Blue) and one #2 ULTRABRAID Suture
72203708	HEALICOIL REGENESORB 5.5mm Suture Anchor with one ULTRATAPE Suture (Blue) and one #2 ULTRABRAID Suture
72203801	HEALICOIL REGENESORB 5.5mm Suture Anchor with one ULTRATAPE (Cobraid Blue) and one #2 ULTRABRAID Suture

Ordering information (cont.)

HEALICOIL® REGENESORB® Suture Anchor Pre-loaded with ULTRABRAID® Suture

Reference #	Description
72203704	HEALICOIL REGENESORB 4.75mm Suture Anchor with two #2 ULTRABRAID sutures (Blue, Cobraid Blue)
72203706	HEALICOIL REGENESORB 5.5mm Suture Anchor with two #2 ULTRABRAID sutures (Blue, Cobraid Blue)
72203707	HEALICOIL REGENESORB 5.5mm Suture Anchor with three #2 ULTRABRAID sutures (Blue, Cobraid Blue, Cobraid Black)

HEALICOIL REGENESORB Accessory Devices

Reference #	Description
72203709	HEALICOIL REGENESORB 4.75mm Threaded Dilator, reusable
72203710	HEALICOIL REGENESORB 5.5mm Threaded Dilator, reusable
72203951	HEALICOIL REGENESORB 4.75mm Threaded Dilator, disposable
72203952	HEALICOIL REGENESORB 5.5mm Threaded Dilator, disposable
72203482	3.5mm Spade Tip Drill
72203483	4.5mm Spade Tip Drill

FIRSTPASS® ST Suture Passer*

Reference #	Description
22-4038	FIRSTPASS ST Suture Passer, self-capture
22-4039	FIRSTPASS ST Suture Passer, standard

MINITAPE® Suture

Reference #	Description
72205129	MINITAPE COBRAID White
72205128	MINITAPE COBRAID Blue
72205127	MINITAPE Blue

WEREWOLF® COBLATION® FLOW 90° Wand*

Reference #	Description
72290038	FLOW 90 Wand

DYONICS® PLATINUM Blades and Resection Devices

Reference #	Description
72202531	4.5mm BONECUTTER® PLATINUM Blade
72202530	5.5mm BONECUTTER PLATINUM Blade
72200730	DYONICS 4.0MM ELITE ACROMIOBLASTER BURR
72200731	DYONICS 5.5MM ELITE ACROMIOBLASTER BURR
72200616	DYONICS POWERMAX® ELITE Shaver Handpiece, hand-controlled

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For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.

References

- Clark TR, Guerrero EM, Song A, O'Brien MJ, Savoie FH. Do Vented Suture Anchors Make a Difference in Rotator Cuff Healing. *Ann Sports Med Res.* 2016, 3(3): 1068.
- Chahla J, Liu JN, Manderle B, et al. Bony ingrowth of coil-type open-architecture anchors compared with screw-type PEEK anchors for the medial row in rotator cuff repair: a randomized controlled trial. *Arthroscopy.* 2019 Dec 3. [Epub ahead of print].
- Calori GM, Mazza E, Colombo M, Ripamonti C. The use of bone-graft substitutes in large bone defects: Any specific needs? *Injury.* 2011;42(2):S56-S63.
- Data on file at Smith+Nephew, internal report no. 15009719, 2020
- Data on file at Smith+Nephew, internal report no. 15009718, 2020
- Kim JH, Kim YS, Park I, Lee HJ, Han SY, Jung S, Shin SJ. A Comparison of Open-Construct PEEK Suture Anchor and Non-Vented Biocomposite Suture Anchor in Arthroscopic Rotator Cuff Repair: A Prospective Randomized Clinical Trial. *Arthroscopy.* 2020, 36 (2): 389-396.
- Data on file at Smith+Nephew, internal report no. 15009720, 2020
- Walsh WR, Morberg P, Yu Y. Response of a Calcium Sulfate Bone Graft Substitute in a Confined Cancellous Defect. *Clin. Orthop. Rel. Res.* 2003 Jan;(406):228-36.
- Constantino, Friedman. Synthetic Bone Graft Substitutes *Otolaryngol Clin North Am.* 1994 27(5):1037-1074.
- Arai E, Nakashima H, Tsukushi S, et al. Regenerating the fibula with beta-tricalcium phosphate minimizes morbidity after fibula resection. *Clin Orthop Relat Res.* 2005(431):233-237.
- Gaasbeek RD, Toonen HG, van Heerwaarden RJ, Buma P. Mechanism of bone incorporation of beta-TCP bone substitute in open wedge tibial osteotomy in patients. *Biomaterials.* 2005;26(33):6713-6719.
- Chu C-C. Section IV:44, Biodegradable Polymeric Biomaterials: An Updated Overview. In: *The Biomedical Engineering Handbook*: Bronzino JD Ed. CRC Press.; 1995.
- Park K, Skidmore S, Hadar J, et al. Injectable, long-acting PLGA formulations: Analyzing PLGA and understanding microparticle formation. *J Control Release.* 2019;304:125-134.
- Milewski MD, et al. Bone replacement of fast-absorbing biocomposite anchors in arthroscopic shoulder labral repairs. *The American Journal of Sports Medicine.* 2012.
- Arthrex Inc. BioComposite SutureTak, BioComposite Corkscrew FT and BioComposite PushLock: An In Vitro Degradation Study, 2009.
- Allison DC, Lindberg AW, Mirzayan R, Samimi B, Menendez LR. A Comparison of Mineral Bone Graft Substitutes for Bone Defects. *US Oncology and Hematolog.* 2011.
- Ogose A, Kondo N, Umezumi H, et al. Histological assessment in grafts of highly purified beta-tricalcium phosphate (OSferions) in human bones. *Biomaterials.* 2006;27(8):1542-1549.