

Life is *dynamic*. Your suture should be too.



DYNA

Suture Technology



DePuy Synthes

MITEK SPORTS MEDICINE

PART OF THE *Johnson & Johnson* FAMILY OF COMPANIES

DYNA Suture Technology

When needed*, self-tensions to provide continuous compression for at least 12 weeks^{1,2*}

The Challenge:

High density polyethylene, the key material in high-strength sutures, has been found to relax under load³, which can cause sutures to lose tension. Our testing showed that FiberWire[®] loses 52% of suture tension within 24 hours (even in a knotless configuration).² The lack of persistent footprint area pressure could diminish tendon to bone healing.^{4,5}

52%↓
**Loss In Tension at
24 Hours for FiberWire[®]**

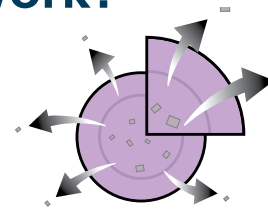
Our Solution to Suture Laxity:

Our dynamic sutures are high-strength orthopedic sutures that utilize DYNA Suture Technology to self-tension, when needed*, to provide continuous compression for at least 12 weeks.^{1,2}

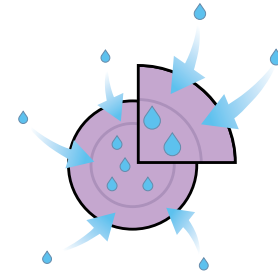
The sutures are comprised of three layers: 1) an outer braided sheath made of ultra high molecular weight polyethylene fibers and an optional polyester tracer 2) an inner sheath made of braided polyester fibers and 3) a salt-infused silicone core.

How does DYNA Suture Technology work?

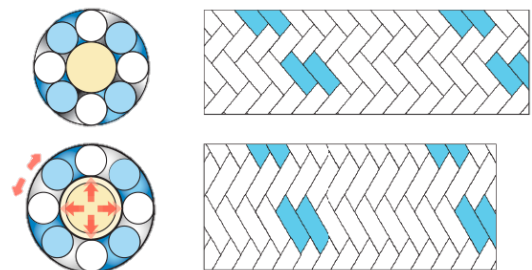
1 In a fluid environment, the **salt dissolves** leaving a porous core.



2 The sutures provide continuous compression†. **Only when tension is lost‡**, the braided structure relaxes and allows the core to swell.



3 As the core swells, the braid shortens‡ resulting in **self-tensioning**.



*Animal and bench testing results may not necessarily be indicative of clinical performance.

† Bench top testing has shown continuous compression for at least 12 weeks

‡ Below approximately 22N for DYNATAPE Suture and 20N for DYNACORD Suture

§ On average up to 7.1% shortening for DYNACORD Suture and 5.1% shortening for DYNATAPE Suture^{6,7}

Dynamic Suture Portfolio

DYNACORD® Sutures

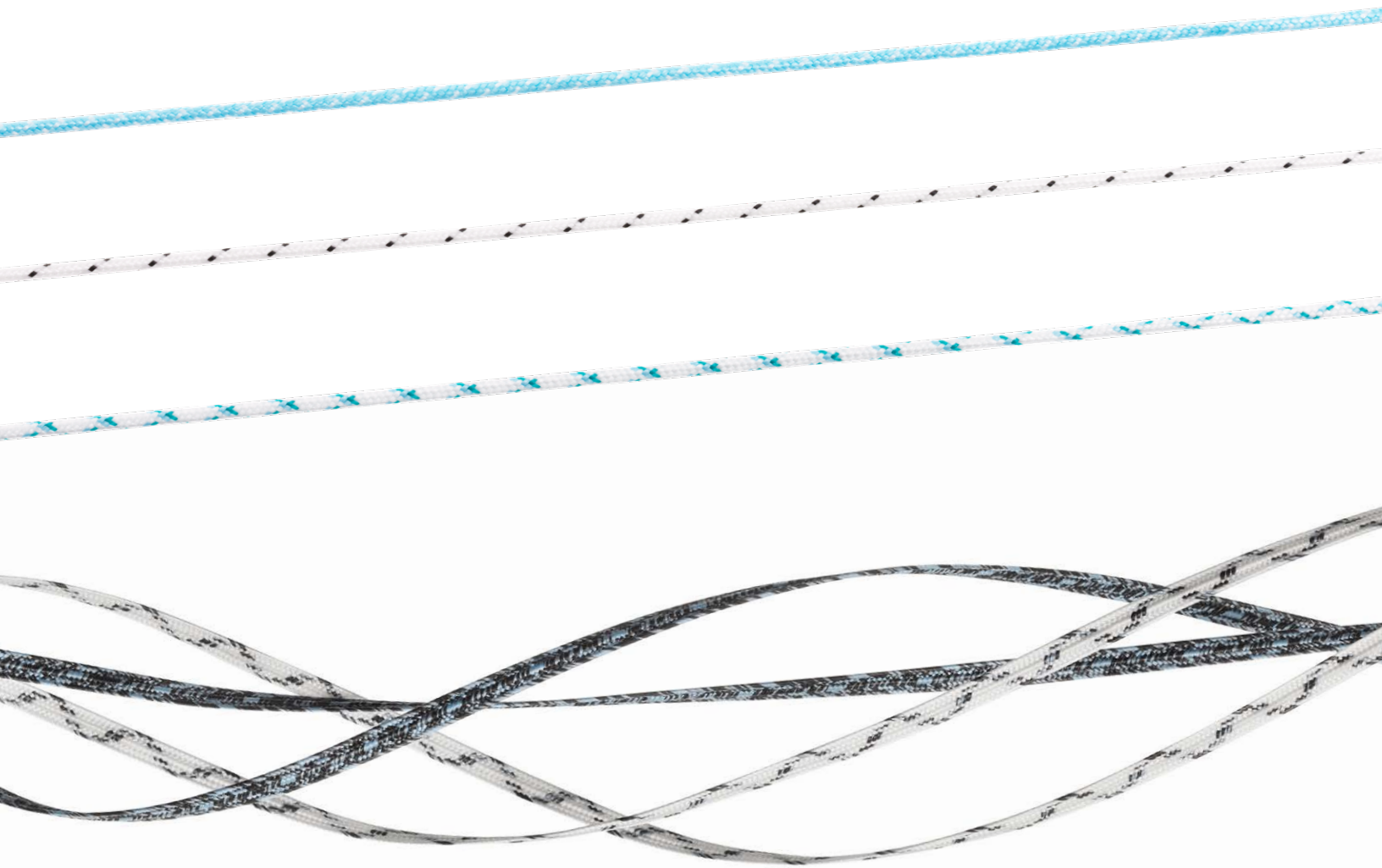
Available on:

4.5 mm, 5.5 mm, 6.5 mm HEALIX ADVANCE® BR and PEEK Anchors

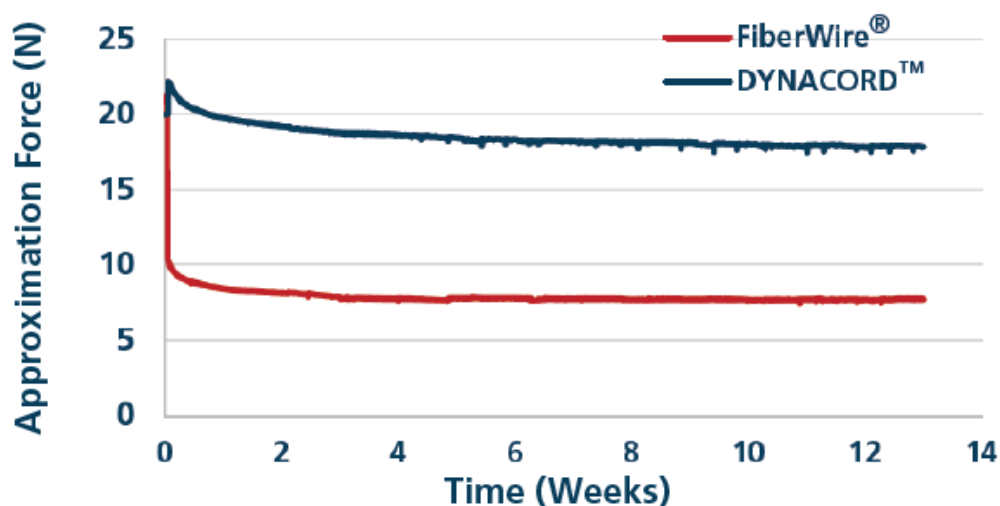
Free strand sutures with and without needles

DYNATAPE® Sutures

Free strand sutures without needles



When needed*, DYNACORD[®] Suture self-tensions to provide **continuous compression** for at least 12 weeks.²



In Ovine Infraspinatus testing DYNACORD[®] Suture was **28% less abrasive** than FiberWire.⁸

Mechanical testing showed that DYNACORD[®] Suture's **tensile strength was comparable** to the tensile strength of FiberWire.⁹

In benchtop testing, Duncan knots backed up with three alternating half hitches (HH) tied with DYNACORD[®] Suture were **more secure** than those tied with FiberWire.^{10*}

* Animal and bench testing results may not necessarily be indicative of clinical performance

Designed to optimize suture tape technology.

74% ↑

Greater compression footprint^{11*††}

At least

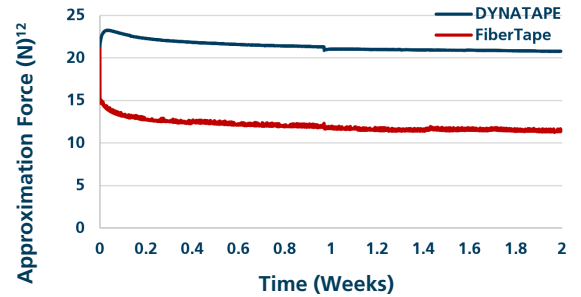
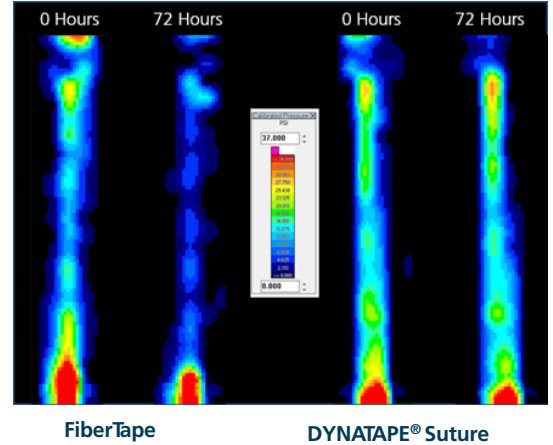
12 Weeks

Continuous compression^{1‡}

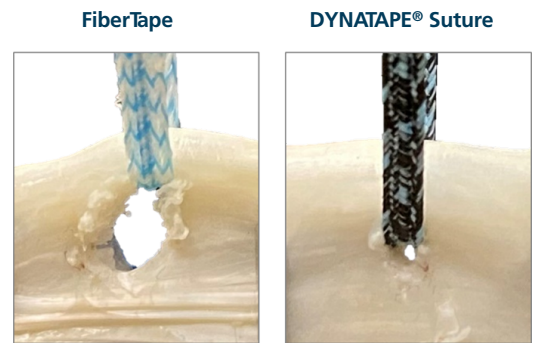
55% ↓

Less abrasive to tissue^{13‡§}

Compression Film Study



Representative data. Testing showed DYNATAPE Suture provided continuous compression for at least 12 weeks.¹



50 cycle test at 40 mm displacement

*Data analysis was conducted at a threshold compression of 4.6 PSI

†As compared to FiberTape after 72 hours

‡ Animal and bench testing results may not necessarily be indicative of clinical performance

§ As compared to FiberTape

Product Details

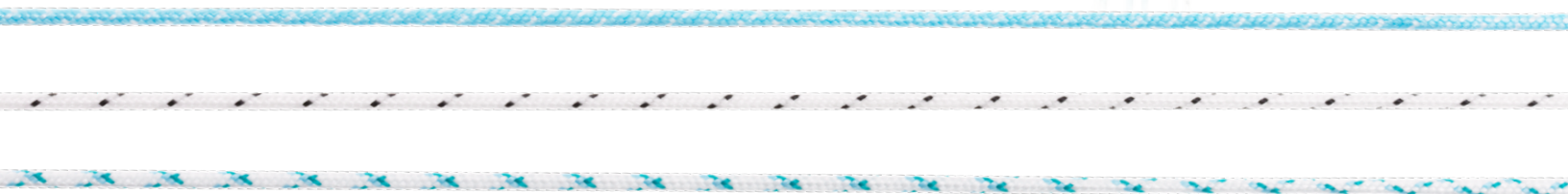
DYNATAPE[®] *Suture*

- DYNATAPE Suture tapers down to a round suture at the end
- DYNATAPE Suture is 2.5 mm wide
- DYNATAPE Suture comes in white and black color options for suture management



DYNACORD[®] *Suture*

- HEALIX ADVANCE Anchors with DYNACORD Suture are available double or triple-loaded
- DYNACORD Suture comes in blue and striped color options for suture management



Anchor Type	Anchor Material	Suture Type	Anchor Size	Product Code
HEALIX ADVANCE® Anchors	BIOCRYL RAPIDE® Biocomposite Material	Single Strand #2 DYNACORD Suture	4.5 mm	222001
			5.5 mm	222004
			6.5 mm	222011
		Single Strand #2 DYNACORD Suture with Needles	4.5 mm	222000
			5.5 mm	222006
			6.5 mm	222015
		Triple Strand #2 DYNACORD Suture	4.5 mm	222002
			5.5 mm	222005
			6.5 mm	222013
	PEEK	Single Strand #2 DYNACORD Suture	4.5 mm	222028
			5.5 mm	222032
			6.5 mm	222036
		Single Strand #2 DYNACORD Suture with Needles	4.5 mm	222027
			5.5 mm	222034
			6.5 mm	222038
Triple Strand #2 DYNACORD Suture		4.5 mm	222029	
		5.5 mm	222033	
		6.5 mm	222037	

Suture Type	Needle Type	Suture Color	Quantity	Product Code
Single Strand	Without needles	Blue	1 Pack of 12 sutures	222067
	Without needles	Striped	1 Pack of 12 sutures	222068
	With OS-6 needles	Blue	1 Pack of 12 sutures	222065
	With MO-7 needles	Blue	1 Pack of 12 sutures	222066
Double Strand	Without needles	Striped/Blue	1 Pack of 12 double strand sutures	222069
	With OS-6 needles	Striped/Blue	1 Pack of 12 double strand sutures	222073
	With MO-7 needles	Striped/Blue	1 Pack of 12 double strand sutures	222071

Suture Type	Needle Type	Suture Color	Quantity	Product Code
Single Strand	Without needles	White	1 Pack of 12 sutures	280825
	Without needles	Black	1 Pack of 12 sutures	280282
	Without needles	White	Single Pack	280837
	Without needles	Black	Single Pack	280840

REFERENCES:

- + Studies showed no added long-term tension at tested loads (20N, 40N). ADAPTIV #103670396.
- * Animal and bench testing results may not necessarily be indicative of clinical performance.
- 1. DYNATAPE™ Suture Approximation Force Report. 3/13/2020. ADAPTIV #103670396.
- 2. DYNACORD™ Suture Approximation Force Report. 09/18/2017. ADAPTIV #103394861.
- 3. Jordan MC, Boelch S, Jansen H, Meffert RH, Hoelscher-Dohr S. Does plastic suture deformation induce gapping after tendon repair? A biomechanical comparison of different suture materials. J Biomech. 2016;49(13):2607-2612. doi:10.1016/j.jbiomech.2016.05.023.
- 4. Mazzocca AD et al. Biomechanical evaluation of arthroscopic rotator cuff repairs over time. Arthroscopy. 2010; 26(5):592-596.
- 5. Brassart et al. Loss of rotator cuff tendon-to-bone interface pressure after reattachment using a suture anchor. J Shoulder Elbow Surg. 2008; 17(5):784-789.
- 6. DYNACORD Suture Strain DVE Report. 08/30/2018. ADAPTIV #103438719.
- 7. DYNATAPE Suture Strain DVE Report. 03/09/2020. ADAPTIV #103667817.
- 8. DYNACORD Suture Abrasive Study. 05/20/2020. ADAPTIV #103694565.
- 9. DYNACORD Suture Straight Tensile Strength Report. 08/30/2018. ADAPTIV #103407084.
- 10. DePuy Synthes. Knot Security Design Verification Report. ADAPTIV #103412391.
- 11. DYNATAPE Compression Film Study. 10/12/2020. ADAPTIV #103742818.
- 12. DYNATAPE Suture vs. FiberTape Cheesewire Comparison. 09/24/2020. ADAPTIV #103742818.

Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.

WARNING: Please also refer to the package insert(s) or other labeling associated with the devices identified in this product catalog for additional information.

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