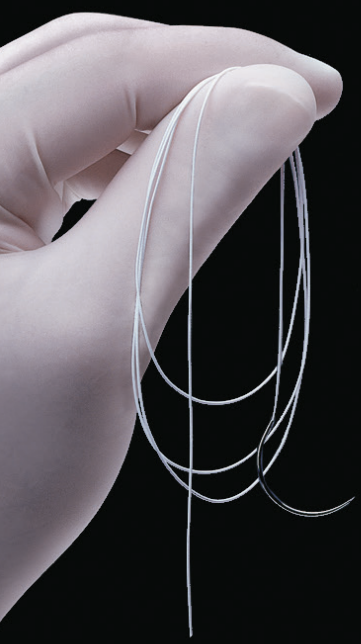
The Perfect Close

to your surgical procedure

PERFORMANCE through innovation

GORE-TEX® SUTURE



GORE-TEX® Suture is a unique, microporous, nonabsorbable monofilament made of expanded polytetrafluoroethylene (ePTFE), the same proven material used in other GORE Medical Products.

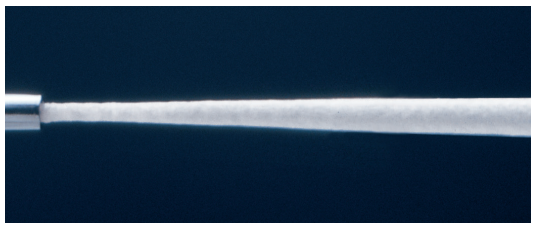
Excellent Handling

GORE-TEX® Suture is soft, flexible, and compressible for ease in suturing. There is no retained kinking, coiling, or package memory.

Reduced Needle Hole Leakage

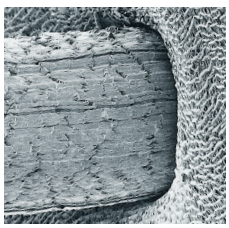
GORE-TEX® Suture was originally developed to help minimize suture line bleeding. The unique structure allows the attachment of needles that approximate the diameter of the thread. The GORE-TEX® Suture fills the needle hole and can reduce blood loss and shorten time to hemostasis. This attribute is useful where minimizing needle hole leakage is desired.

See order information for suture items available with a 1:1 needle to thread ratio.

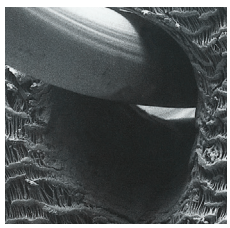


GORE-TEX® Suture
(Available 1:1 needle-to-thread ratio)

Polypropylene Suture
(2 or 3:1 needle-to-thread ratio)



SEM showing GORE-TEX® Suture filling the needle hole made in a GORE-TEX® Vascular Graft by a TT-12 needle.



SEM showing monofilament suture through the needle hole made in a GORE-TEX® Vascular Graft by a TT-12 equivalent needle.

Suture Nomenclature

Sizing designations for GORE-TEX® Suture do not follow the standard United States Pharmacopeia (USP) nomenclature used for many commercially available sutures. Instead, sizing is designated by a "CV" prefix followed by a number, with CV-8 the smallest and CV-0 the largest. To aid in appropriate size selection, Tables I and II show the tensile strength of GORE-TEX® Suture and other nonabsorbable sutures. For example, if knot-pull tensile strength is used as the suture selection criterion, a CV-6 GORE-TEX® Suture would be used in place of a 5-0 monofilament polypropylene suture.

Table I: GORE-TEX® Suture Data

GORE-TEX® SUTURE SIZE	GORE-TEX® SUTURE KNOT-PULL TENSILE STRENGTH (kg)
CV-8	0.30
CV-7	0.40
CV-6	**0.65**
CV-5	1.00
CV-4	1.67
CV-3	2.64
CV-2	3.50
CV-0	5.27

Table II: Comparative Suture Data*

	KNOT-PULL TENSILE STRENGTH (kg)	
USP SIZE	MONOFILAMENT POLYPROPYLENE	BRAIDED POLYESTER
7-0	0.202	0.313
6-0	0.33	0.568
5-0	**0.653**	1.003
4-0	1.196	1.245
3-0	1.75	1.877
2-0	2.827	2.935
0	3.939	3.670
1	5.366	5.404

*Data on file

Knotting

The properties of GORE-TEX® Suture facilitate knot tying. The soft, flexible surface results in softer knots when placed in the subcutaneous tissue as compared to other monofilament suture. In addition, the smooth surface of the suture minimizes friction, allowing individual throws to slide easily, providing for precise positioning of a knot.

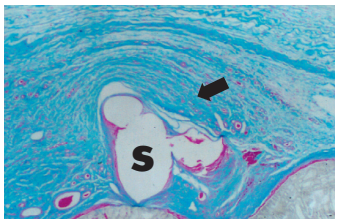
Alternate direction of each throw, with even tension, parallel to previous throw.

Alternating flat throws, right over left/left over right, with both strands parallel as they enter and leave the knot.

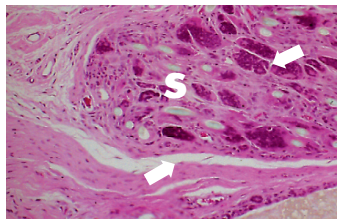
Inert and Biocompatible

The porous microstructure of GORE-TEX® Suture allows tissue attachment and, in combination with the inertness and biocompatibility of ePTFE, fosters a benign tissue response. The benign tissue response to the supple GORE-TEX® Suture makes it particularly well-suited for procedures in which less capsule formation and less inflammation are important.

Micrograph showing a typical response to GORE-TEX® Suture (S). Notice the minimal capsule formation and limited inflammatory response. H&E stain (25X)



Micrograph showing the response to polypropylene suture (S). Capsule formation is more pronounced than with the GORE-TEX® Suture. Trichrome stain (25X)



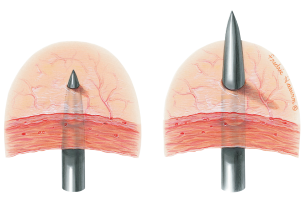
Micrograph showing the response to a braided polyester suture (S). In comparison with the response to monofilament sutures, the inflammatory response is generally greater with multifilament sutures. H&E stain (25X)

Strong and Ductile Needles

Gore needles are constructed of a 300 series, stainless steel alloy that provides high ductility and excellent strength. Two point types are available: taper and piercing.

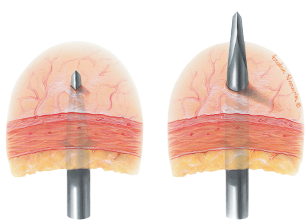
Premium 'c' series needles are offered for demanding vascular applications. A modified needle surface reduces force required to penetrate tissue while an engineered cross section and superior metallurgy produces a stiffer needle that is more resistant to bending.

Taper Point



Smooth, even point for easily penetrated tissues, tapered body

Piercing Point



Multifaceted tip for tough tissue, tapered body

The Ideal Companion

Suture choice plays an important part in achieving an optimal implantation of synthetic devices, particularly where ease of use and reduced suture hole leakage are key considerations. The unique properties of GORE-TEX® Suture make it an ideal companion for surgical procedures utilizing ePTFE grafts and patches.

Common Applications

Common applications include but are not limited to:

- Anastomosis of vascular grafts for vascular access
- Anastomosis of vascular grafts for peripheral vascular disease
- Anastomosis of aorto-bifemoral vascular grafts
- Chordae tendineae repair and replacement in mitral valve repair
- Carotid endarterectomy
- Ventral hernia repair
- Open inguinal hernia repair
- Robotic surgery

Package Design

The unique delivery system for GORE-TEX® Suture is designed with ease of use in mind. For the majority of the part numbers, needle visibility through the package allows product confirmation before opening the pouch. Slotted needle grips allow for rapid arming of the needle without snagging or knotting of the thread.

References

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For further ordering information, refer to the GORE-TEX® Suture Ordering Information brochure.

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