

# VENTRIO™ Hernia Patch

with SORBAFLEX™ Memory Technology



Extra Large sizes  
now available

## Easy: SORBAFLEX™ Memory Technology

- Springs open, lays flat and maintains shape.
- Facilitates easy placement and positioning throughout the ventral repair.
- Absorption of the PDO monofilament occurs in vivo by means of hydrolysis and is essentially complete in 6–8 months, leaving less implant material behind.<sup>††</sup>

## Efficient: Positioning Pocket

- Easy handling and positioning.
- Allows the use of mechanical fixation for increased efficiency.
- Monofilament polypropylene mesh provides fast tissue ingrowth and incorporation, eliminating the need for permanent transfixation sutures.

## Proven: Trusted Materials

- Submicronic ePTFE side minimizes tissue attachment to the patch.
- ePTFE is complemented by monofilament polypropylene and polydioxanone.
- All used in general surgery for many years with success demonstrated by clinical outcomes.

## The VENTRIO™ Hernia Patch Triple Advantage: Easy. Efficient. Proven.

The VENTRIO™ Hernia Patch's unique design and technique offer patients the benefits of an intraabdominal repair, while offering surgeons the ease of an open anterior approach with the added flexibility and efficiency to use mechanical fixation.

The parietal side is constructed of two layers of monofilament polypropylene mesh, providing rapid tissue ingrowth and strong incorporation into the abdominal wall. The anterior mesh layer is constructed with lightweight monofilament polypropylene with a large pore knit design which incorporates cross-weaves to facilitate secure fixation. The visceral side is made of submicronic ePTFE, which provides a permanent barrier minimizing tissue attachment.

These layers combine to form a positioning pocket and contain the unique SORBAFLEX™ Memory Technology. Together, they facilitate easy patch placement and positioning. The SORBAFLEX™ Memory Technology allows the patch to spring open and lie flat during placement. Then the positioning pocket allows for the use of mechanical fixation. SORBAFLEX™ Memory Technology is comprised of an extruded polydioxanone PDO monofilament. Absorption of the PDO monofilament occurs in vivo by means of hydrolysis and is essentially complete in 6–8 months, leaving less implant material behind.<sup>††</sup>

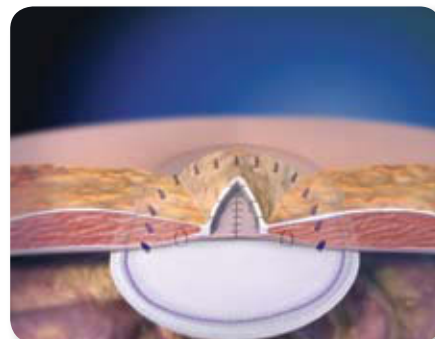
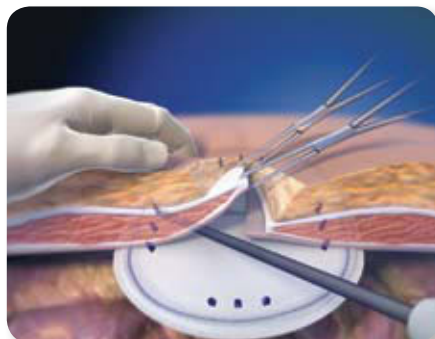


*VENTRIO™ Patch with SORBAFLEX™ Memory Technology provides the benefits of a laparoscopic repair through the ease of an open intraabdominal approach.*

**BAIRD**  
DAVOL INC.

TECHNOLOGY  
TECHNIQUE  
TRAINING  
TRUST

## EFFICIENT.



The special positioning pocket aids in proper placement and positioning, while also allowing the use of mechanical fixation, for a quick efficient repair. The monofilament polypropylene results in strong tissue incorporation within a short period of time, providing the long-term strength of the repair. Full thickness abdominal wall transfixation sutures are not necessary.

*Please see "Patch Folding Technique" section in Instructions for Use.*

The VENTRIO™ Hernia Patch is compatible in both Open and Laparoscopic Ventral procedures with the SORBAFIX™ Absorbable Fixation System and the PERMAFIX™ Permanent Fixation System.

## STRONG. CONSISTENT. RELIABLE.

- Repair strength approximately 7x greater than maximum Intraabdominal Pressure (IAP)<sup>1,2</sup>
- Fastener length provides for maximum depth of purchase.
- Atraumatic blunt tip fastener with smooth head and no exposed points.



SORBAFIX™ fasteners fixated to the anterior mesh layer positioning pocket of the VENTRIO™ Hernia Patch.

*This image is from a porcine model using the VENTRIO™ Hernia Patch and SORBAFIX™ Absorbable Fixation System. Data on file.*



## Variety of Sizes Available

VENTRIO™ Hernia Patch is available in a variety of shapes and sizes to meet your surgical needs dependent on defect size and location. A unique mid-line oval shaped patch designed for "swiss-cheese" multiple defects is also available.

## EASY.

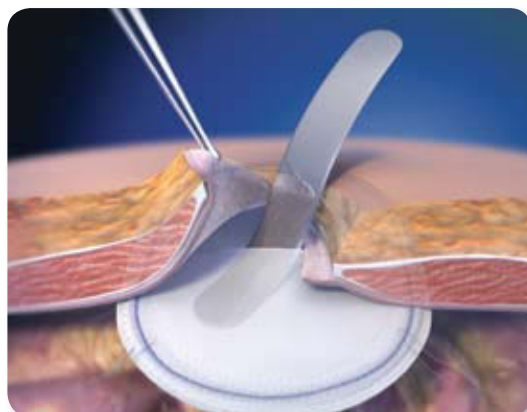
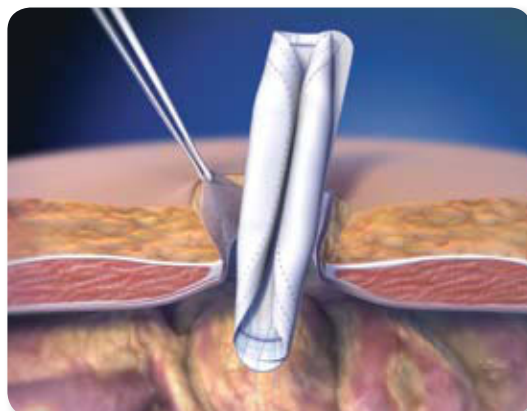
The VENTRIO™ Hernia Patch's unique design features work together to provide the benefit of Laparoscopic repair through the ease of an Open Anterior approach.

### Intraabdominal Placement

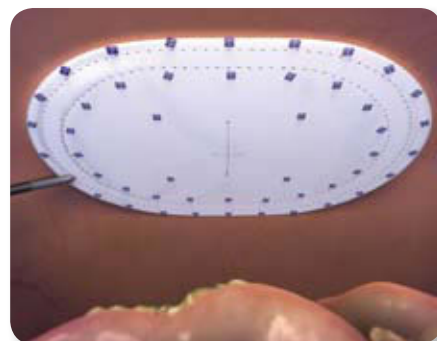
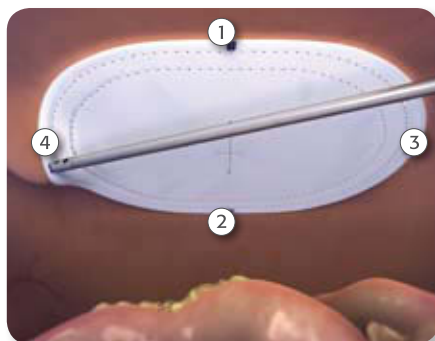
- No preperitoneal lateral dissection reduces surgical time and leads to quick patient recovery.
- May reduce the need for drains, the chance of seroma formation, and the minimized dissection may reduce the chance of infection.

The unique SORBAFLEX™ Memory Technology permits folding of the patch for easy insertion<sup>1</sup>, allowing the patch to spring open and lie flat in the intraabdominal space. Along with the positioning pocket, it facilitates proper patch placement and positioning throughout the ventral procedure.

*Please see "Patch Folding Technique" section in Instructions for Use.*



The VENTRIO™ Hernia Patch can also be used in Laparoscopic Ventral Procedures.



### Laparoscopic Repairs

The VENTRIO™ Hernia Patch may be used in laparoscopic procedures as well. The SORBAFLEX™ Memory Technology allows the patch to spring open and lie flat within the intraabdominal space. It facilitates proper patch placement and positioning throughout the ventral procedure.

*Please see "Patch Folding Technique" section in Instructions for Use.*

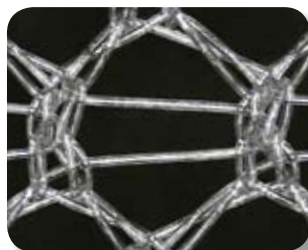
## PROVEN.

The VENTRIO™ Hernia Patch's unique design combines three materials used in general surgery for many years with demonstrated clinical outcomes, to deliver proven benefits to both you and your patients.

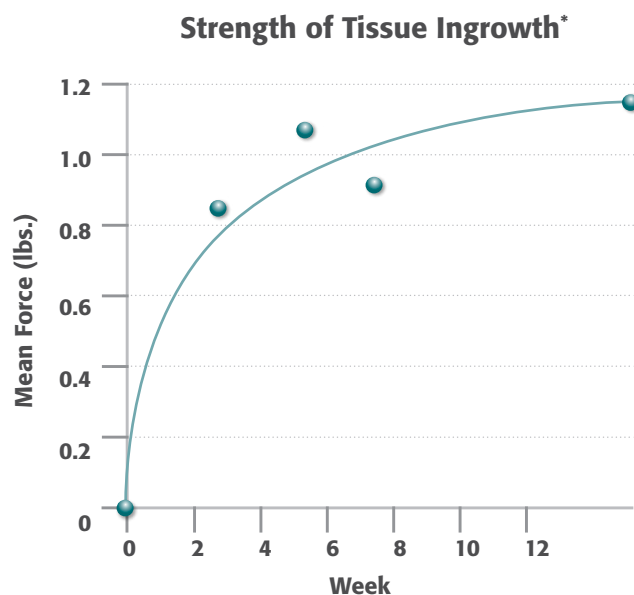
### Strength in Repair via Monofilament Polypropylene Mesh

With over 40 years of proven results in hernia repair, monofilament polypropylene delivers fast fibrotic response, resulting in strong tissue incorporation into the abdominal wall, which provides a strong repair long-term, minimizing recurrences.

The anterior mesh layer of the positioning pocket is made of light weight monofilament polypropylene with a large pore knit design which incorporates cross-weaves through the pore structure to facilitate secure fixation.



35x Magnification



Logarithmic regression curve of mean force of lap-shear strength as a function of time. **74% of the 12 week strength is achieved by 2 weeks post-operatively.**

*\*Majercik, S. et al. "Strength in tissue attachment to mesh after ventral hernia repair with synthetic composite mesh in a porcine model." Surg Endosc (2006) 20: 1671-1674.*

### Permanent Barrier via Submicronic Expanded Polytetrafluoroethylene (ePTFE)

Allows for an intraabdominal placement by providing a permanent barrier on the visceral side, which minimizes tissue attachment to the prosthetic and provides long-term protection against complications such as bowel obstruction and fistulas, which may occur many years post-operatively.



Initial implant



4 weeks

*These images are from a porcine study using the VENTRIO™ Hernia Patch. Data on file.*

### ePTFE Edge Overlap

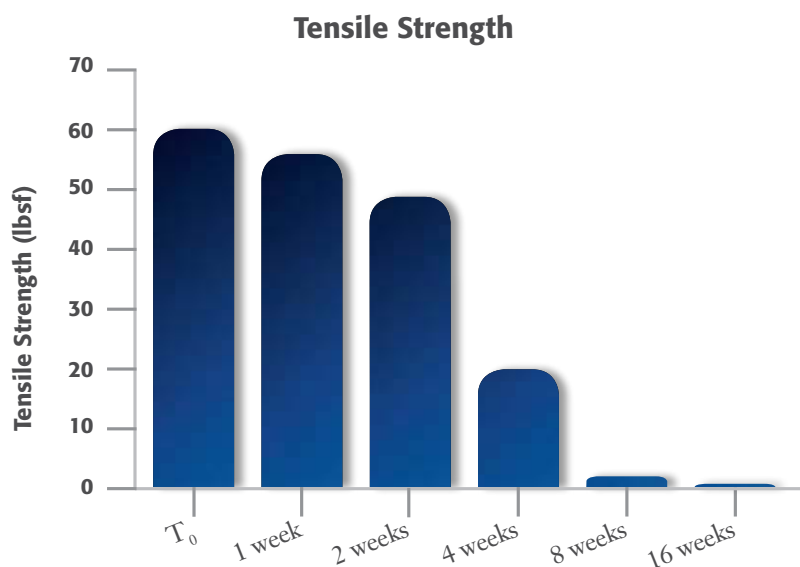
Extending beyond the polypropylene mesh edge, the unique ePTFE overlap provides added protection, minimizing tissue attachment to the edge of the patch.





## SORBAFLEX™ Memory Technology via Polydioxanone (PDO) Monofilament

Similar to the material used in some absorbable suture material such as PDS™ II Suture, PDO monofilament is unique in its flexibility and tensile strength, facilitating ease of patch insertion and proper placement. Absorption of the PDO monofilament occurs in vivo by means of hydrolysis and is essentially complete in 6–8 months, leaving less implant material behind.<sup>††</sup>



Data generated from an animal study using the VENTRIO™ Hernia Patch. Data on file.



## Technique and Outcomes of Abdominal Incisional Hernia Repair Using a Synthetic Composite Mesh: A Report of 455 Cases.

*Journal of the American College of Surgeons, January 2008 Volume 206, Number 1.*

David A. Iannitti, MD, FACS, William W. Hope, MD, H. James Norton, PhD, Amy E. Lincourt, PhD, Keith Millikan, MD, FACS, Michael E. Fenoglio, MD, FACS, Mark Moskowitz, MD, FACS

“Potential advantages of this prosthesis include a polypropylene side that is placed toward the abdominal wall, which stimulates tissue ingrowth and potentially helps to reduce risk of recurrence. The expanded PTFE barrier side is placed toward the abdominal viscera to help prevent adhesions and tissue attachment, potentially preventing complications such as fistula formation.”<sup>\*\*\*</sup>

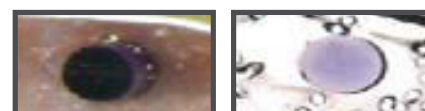
To learn more about this repair technique and its demonstrated clinical outcomes, please contact your BARD representative at (800) 556-6275 to schedule a convenient consultative visit.

<sup>\*\*\*</sup> Clinical study utilizes the BARD® COMPOSIX® Kugel® Hernia Patch, which is similar in product design.

## Absorption Over Time

Gross  
Explants

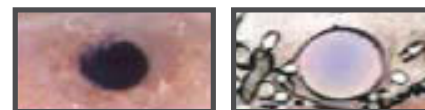
Histology



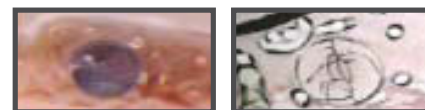
1 week



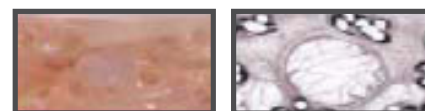
2 weeks



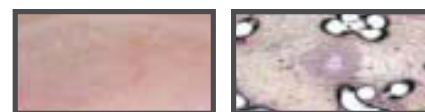
4 weeks



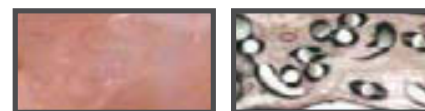
8 weeks



16 weeks



24 weeks



32 weeks

These images are from a porcine study using the VENTRIO™ Hernia Patch. Data on file.



## VENTRIO™ Hernia Patch

is just one in a complete family of hernia repair products:

### Ventral Hernia Repair Products

VENTRALEX™ Hernia Patch  
COMPOSIX™ L/P Mesh  
VENTRIO™ Hernia Patch  
SEPRAMESH™ IP Composite  
DULEX™ Mesh  
COLLAMEND™ FM Implant  
ALLOMAX™ Surgical Graft

### Inguinal Hernia Repair Products

PERFIX™ Plug  
PERFIX™ Light Plug  
MK™ Patch  
KUGEL™ Hernia Patch  
BARD® Soft Mesh  
3DMax™ Mesh  
3DMax™ Light Mesh  
VISILEX™ Mesh  
BARD® Mesh Flats and Pre-Shapes  
XENMATRIX™ Surgical Graft

### Specialty Products

CK™ Parastomal Hernia Patch  
CRURASOFT™ Patch

### Fixation Products

SORBAFIX™ Absorbable Fixation System  
PERMASORB™ Disposable Fixation Device  
PERMAFIX™ Permanent Fixation System

## BARD® Surgical Services

### Clinical Education Program

National education centers offer instruction in surgical techniques and the ability to view live surgery.

### Speaker Program

Educational presentations are given at Grand Rounds, Society Meetings and other venues.

### Procedure Introduction Kits

Video programs that describe specific hernia repair techniques and their benefits to you, your patients and your surgical practice.

These services are available for many of the BARD® hernia repair products. Please ask your representative, or visit [www.davol.com](http://www.davol.com).

Catalog Number	Quantity	Size	Diameter	
0010211	1/cs.	Small Oval with ePTFE	3.1" x 4.7" (8.0 cm x 12.0 cm)	<input type="checkbox"/>
0010215	1/cs.	Medium Oval with ePTFE	4.3" x 5.5" (11.0 cm x 14.0 cm)	<input type="checkbox"/>
0010212	1/cs.	Large Oval with ePTFE	5.4" x 7.0" (13.8 cm x 17.8 cm)	<input type="checkbox"/>
0010213	1/cs.	Small Circle with ePTFE	3.0" (7.6 cm diameter)	<input type="checkbox"/>
0010214	1/cs.	Large Circle with ePTFE	4.5" (11.4 cm diameter)	<input type="checkbox"/>
0010216	1/cs.	Extra Large Oval with ePTFE	8.7" x 10.7" (22.1 cm x 27.1 cm)	<input type="checkbox"/>
0010217	1/cs.	Extra Large Oval with ePTFE	10.8" x 13.7" (27.4 cm x 34.9 cm)	<input type="checkbox"/>
0010218	1/cs.	Extra Large Oval with ePTFE	7.7" x 9.7" (19.6 cm x 24.6 cm)	<input type="checkbox"/>
0010219	1/cs.	Oval with ePTFE	6.1" x 10.1" (15.5 cm x 25.7 cm)	<input type="checkbox"/>

☐ Please add the VENTRIO™ Hernia Patch to my preference card.

☐ I would like to have the VENTRIO™ Hernia Patch in stock.

☐ I would like to have SORBAFIX™ Absorbable Fixation System in stock.

☐ I would like to have PERMAFIX™ Permanent Fixation System in stock.

Surgeon's Signature \_\_\_\_\_

Purchase Order Number \_\_\_\_\_

Catalog Number \_\_\_\_\_

Date \_\_\_\_\_ Quantity \_\_\_\_\_

Please consult product labels and inserts for any indications, contraindications, hazards, warnings, precautions, and instructions for use.

#### References:

<sup>1</sup> Twardowski ZJ et al "Intraabdominal Pressures during Natural Activities in Patients Treated with Continuous Ambulatory Peritoneal Dialysis" Nephron 44:129-135 1986. Cobb WS et al. "The Argument for Lightweight Polypropylene Mesh in Hernia Repair" Surgical Innovation. Vol 12 (1). 63-69, 2005.

<sup>2</sup> Data generated from an animal study using the SorbaFix™ Absorbable Fixation System and from a cadaver study using the PermaFix™ Permanent Fixation System. Data on file. Results may not correlate to performance in humans. 3DMax, AlloMax, Bard, CK, CollaMend, Composix, CruraSoft, Davol, Dulex, Kugel, MK, PerFix, PermaFix, PermaSorb, SorbaFlex, Ventralex, Ventrrio and Visilex are trademarks and/or registered trademarks of C. R. Bard, Inc. Sepramesh is a registered trademark of Genzyme Corporation licensed to C. R. Bard, Inc. PDS is a trademark of Ethicon, Inc.

<sup>†</sup> Bard® Modified Kugel® Patch

<sup>††</sup> Data generated from an animal study using Ventrrio™ Hernia Patch. Data on file.

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