## **VENTRIO™ ST** Hernia Patch

featuring Sepra® Technology

### Sepra® Technology

- An extensively studied barrier with more than 10 publications and used clinically since 2007.
- Unique hydrogel barrier swells to minimize tissue attachment to the visceral side of the mesh.\*
- Bioresorbable PGA fibers reinforce the integrity of the hydrogel barrier by binding it to the polypropylene mesh.
- The hydrogel barrier resorbs within 30 days providing visceral protection during the critical healing period.\*



It begins with a hydrogel barrier.
It ends with a strong, long-term repair.

# The VENTRIO<sup>™</sup> ST Hernia Patch Featuring Sepra<sup>®</sup> Technology Easy:

- Provides the benefits of a laparoscopic repair through the ease of a smaller incision.
- SORBAFLEX<sup>™</sup> Memory Technology allows the patch to "spring open," lay flat to maintain shape and then fully absorbs over time.
- Simplifies placement and positioning of the patch throughout the ventral hernia repair.

### **Efficient:**

- Unique pocket aids in the proper placement and positioning of the patch.
- Designed to facilitate the use of mechanical fixation devices and/or sutures.
- Available in a variety of shapes and sizes to accommodate defect sizes and locations.

#### Proven:

- Hydrogel barrier is based on Sepra® Technology.
- Uncoated monofilament polypropylene mesh allows for complete tissue ingrowth leading to a strong repair.
- Materials have been used in general surgery for years with demonstrated clinical success.<sup>1</sup>

Possible complications include seroma, adhesions, hematomas, inflammation, extrusion, fistula formation, infection, allergic reaction, and recurrence of the hernia or soft tissue defect.

\* Preclinical data on file at C. R. Bard. Results may not correlate to performance in humans.

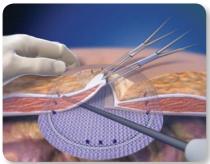


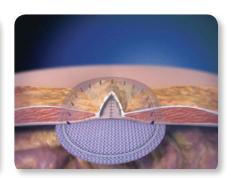
TECHNOLOGY
TECHNIQUE
TRAINING
TRUST

## **EFFICIENT:**

The unique 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.









### Variety of Sizes Available

Ventrio™ ST 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 multiple defects is also available.

### **Mechanical Fixation**

The Ventrio™ ST Hernia Patch is compatible in both open and laparoscopic ventral procedures with the SorbaFix™ Absorbable Fixation System and the PermaFix™ Permanent Fixation System.





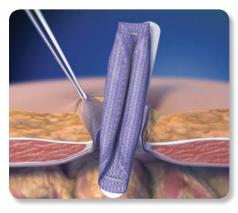
SORBAFIX<sup>TM</sup> fasteners fixated to the anterior mesh layer positioning pocket of the  $VENTRIO^{TM}$  ST Hernia Patch in a preclinical study.

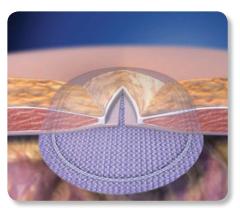
Preclinical data on file at C. R. Bard. Results may not correlate to performance in bumans.

## **EASY:**

The Ventrio<sup>™</sup> ST Hernia Patch's unique design provides the benefit of laparoscopic repair through the ease of a smaller incision.







### Intraabdominal Placement Through a Small Open Incision<sup>‡</sup>

- No preperitoneal lateral dissection may reduce surgical time and lead to quick patient recovery.
- Minimized dissection may reduce the chance of infection and seroma as well as the need for drains.
- The unique SorbaFlex<sup>™</sup> Memory Technology permits rolling of the patch for easy insertion, allowing the patch to "spring open," lay flat to maintain shape and then fully absorbs over time.

<sup>‡</sup> Please see the "Patch Folding Technique" section in the Instructions for Use.

# Established Technique Supported by Published Clinical Data • The design of the Ventrio™ ST Hernia Patch allows the use of the familiar CK™/Ventrio™ Hernia Patch technique for open ventral hernia repair. • Technique is peer reviewed and supported by published clinical data.¹-²

1.2 Iannitti, D. et. al. "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. 2008 7an; 206 (1):83-8.

## **PROVEN:**

The VENTRIO<sup>™</sup> ST Hernia Patch combines materials used in general surgery for many years to deliver proven benefits to you and your patients.

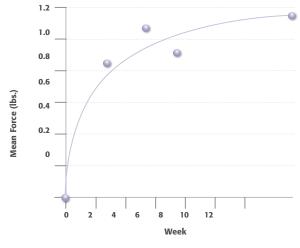
# Uncoated Monofilament Polypropylene Mesh

- Over 40 years of proven results in hernia repair.
- Allows a fast fibrotic response for a strong repair.
- Provides a long-term repair with minimized recurrence.



Open Pore Mesh Design 35x Magnification

### Strength of Tissue Ingrowth In A Preclinical Study\*\*



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.\*\* *Results may not correlate to performance in humans.* 

### **VENTRIO™ ST Hernia Patch Preclinical Results**





Initial implant

2 weeks

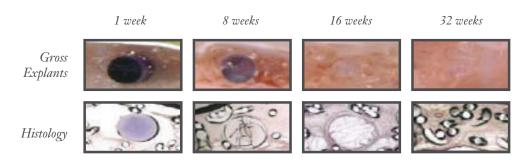
These images are from a porcine study using the VENTRIO™ ST Hernia Patch.

Data on file.

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

### SORBAFLEX™ Memory Technology

- Polydioxanone (PDO) monofilament is commonly used in other well-known surgical products (e.g. suture).
- Unique in its flexibility and tensile strength, it facilitates patch insertion and proper placement.
- Absorption via hydrolysis is essentially complete in 24-32 weeks.\*

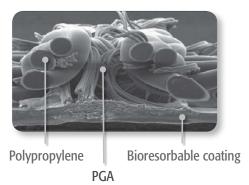


These images are from a porcine study using the VENTRIO<sup>TM</sup> Hernia Patch which contains the same SORBAFLEX<sup>TM</sup> Memory Technology.\*

### SEPRAMESH<sup>™</sup> IP Composite

- Hydrogel barrier is based on the Sepra® technology which has more than 10 publications and used clinically since 2007.
  - Unique hydrogel barrier swells to minimize tissue attachment to the visceral side of the mesh.\*
  - Resorbs within 30 days providing visceral protection during the critical healing process.
- Bioresorbable PGA fibers reinforce the integrity of the hydrogel barrier by binding it to the polypropylene mesh.

### **Cross Section View**



\*Preclinical data on file at C. R. Bard. Results may not correlate to performance in humans.

## Sepramesh™ IP Composite Preclinical Study<sup>††</sup>

"120-Day Comparative Analysis of Adhesion Grade and Quantity, Mesh Contraction, and Tissue Response to a Novel Omega-3 Fatty Acid Bioresorbable Barrier Macroporous Mesh After Intraperitoneal Placement"

Pierce, R., Perrone, J., Abdelrahman, N., Sexton, J., Walcutt, J., Frisella, M., Matthews, B.<sup>3</sup> Surgical Innovation. 2009 Mar; 16(1): 46-54.

Table 1 - Adhesion Properties and Mesh Contraction

Mesh Type	N	Adhesion Grade (1–4)	Adhesion Coverage (%)	Mesh Contraction (%)
SEPRAMESH™ IP Composite	6	1.0 ± 0.0	0.0 ± 0.0	6.4 ± 8.4
ProLite Ultra	12	1.7 ± 1.1	10.7 ± 19.8	9.1 ± 8.3
C-Qur	6	1.2 ± 0.4	3.0 ± 7.3	3.3 ± 2.1
Composix	10	1.9 ± 1.2	24.8 ± 37.0	7.2 ± 7.1
Dualmesh	10	1.3 ± 0.9	1.4 ± 4.4	39.0 ± 6.0
Parietex	6	1.2 ± 0.4	0.8 ± 2.0	14.7 ± 5.0
Proceed	6	2.8 ± 1.0	28.8 ± 16.1	29.7 ± 12.5

<sup>††</sup> Preclinical results may not correlate to performance in humans.