

# Prevention through intervention

**Build a strong foundation for  
your patients' quality of life**

**Phasix™** is a reliable, long-term  
resorbable mesh used to reinforce  
surgical incisions and reduce the risk  
of incisional hernia.



With its expanded indication for prophylactic use, Phasix™ Mesh provides predictable strength in the long run.<sup>3</sup>

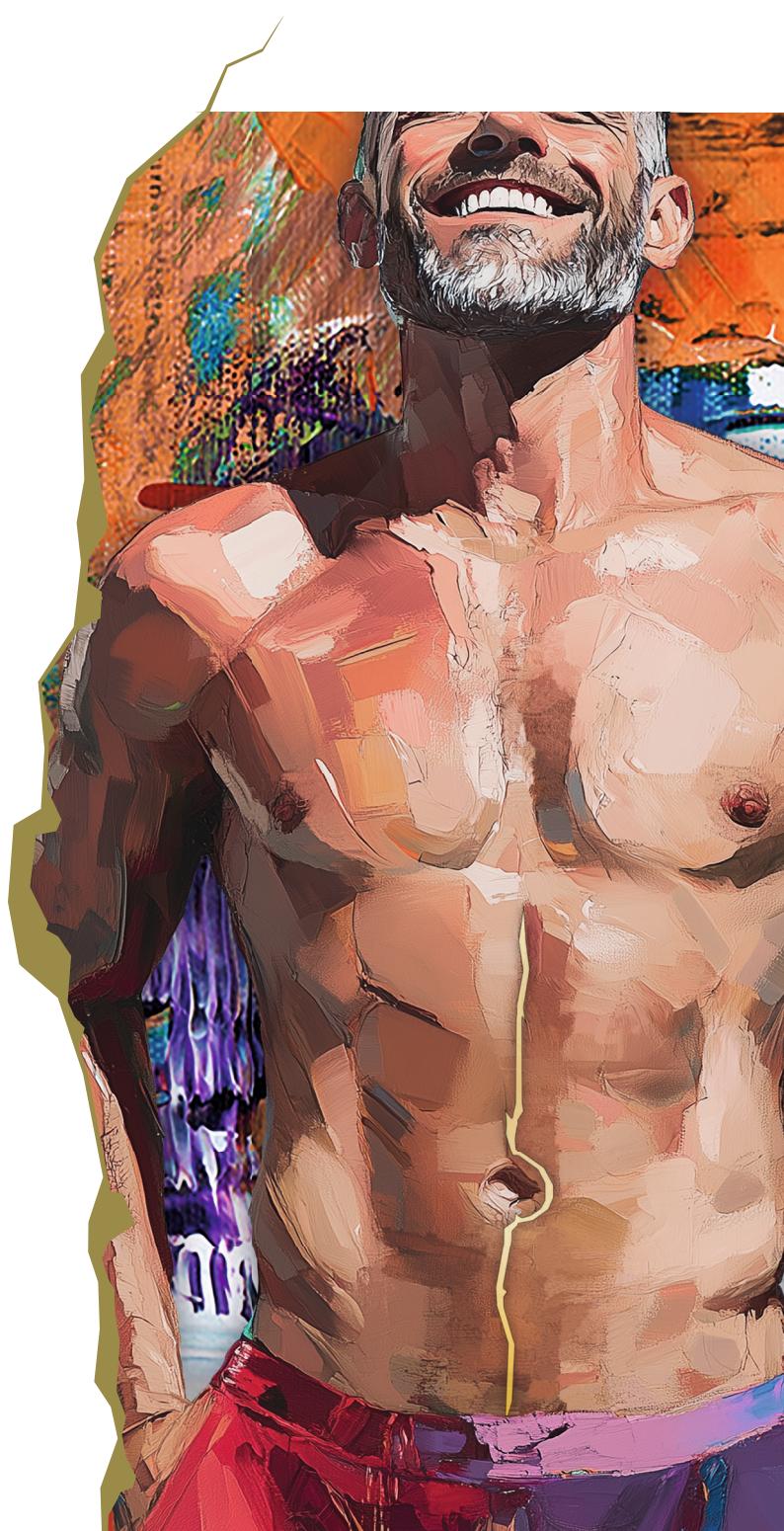
There is an opportunity to stop the chronic cycle of hernia recurrence.

Prophylactic mesh placement has been shown to decrease the incidence of incisional hernias.

This may result in a reduction in hospitalization, healthcare expenditures, and quality of life challenges associated with incisional hernias.<sup>15</sup>

## Prevention through intervention

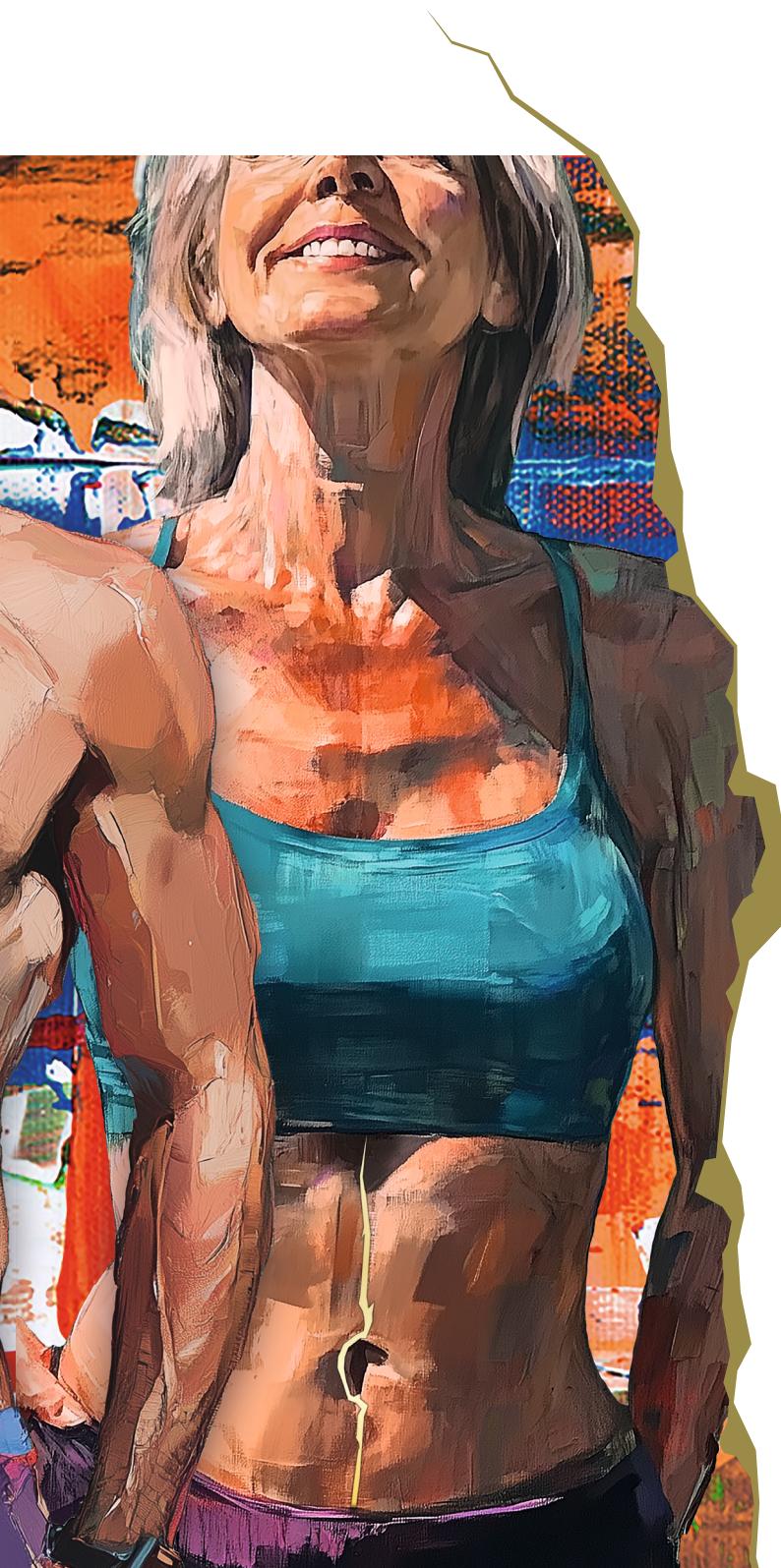
with Phasix™ Mesh



# How do incisional hernias impact your patients?



**A growing body of evidence suggests that prophylactic mesh augmentation (PMA) is an effective strategy to reduce risks and costs associated with incisional hernia.<sup>4</sup>**



- In a prospective clinical study, at 5 years follow-up, 47% of patients with suture-only closure developed an incisional hernia following a midline laparotomy.<sup>4</sup>
- Incisional hernia can cause morbidity and have a negative effect on patients' quality of life.<sup>7,10</sup>
- Incisional hernias result in complications and readmissions post abdominal surgery, leading to significantly higher resource utilization and total cost of care for these patients.<sup>4</sup>

## **Societal guidelines on prevention:**

- The International Endohernia Society (IEHS) recommends use of mesh to reinforce abdominal/midline surgical incisions in patients with high risk of incisional hernia. [Bittner, 2019]
- The European Hernia Society (EHS) guidelines state that the use of mesh to reinforce the surgical incision 'appears effective and safe' and is suggested in high-risk patients. [Deerenberg, 2022]
- The European and American Hernia Societies recommends prophylactic mesh augmentation after elective midline laparotomy can be considered to reduce the risk of incisional hernia. [Deerenberg, 2022]

Phasix™ Mesh is proven to provide support during the critical healing phase post-surgery<sup>3</sup>, building the foundation for long-term strength



**Proven clinical outcomes for a less complicated future.<sup>9,\*</sup>**

#### Phasix™ Mesh Repairs

- Phasix™ Mesh provides internal support to newly repaired tissue immediately after surgery.<sup>1,8</sup>
- Preclinical and in vitro testing have shown that Phasix™ Mesh recruits anti-inflammatory macrophages to naturally initiate an early 'repair' response.<sup>6</sup>

#### Phasix™ Mesh Remodels

- Phasix™ Mesh is designed to integrate with and strengthen the surrounding tissue. Preclinical studies show that P4HB promotes the production of new collagen and, as it is absorbed, is replaced by new tissue over time.<sup>1,3,5</sup>
- Ingrown tissue remodels and retains strength after mesh resorption.<sup>1,13,14</sup>

#### Phasix™ Mesh Restores

- The P4HB mesh supports the maturation of collagen from Type III to Type I.<sup>1,3,11</sup>
  - P4HB is naturally broken down to CO<sub>2</sub> and H<sub>2</sub>O and the body metabolizes the by-products of P4HB via the Krebs cycle.<sup>1,3,12</sup>
- Preclinical data suggest that Phasix™ Mesh provides a strong repair at 52 weeks.<sup>3</sup>

\*Results and experience may vary by patient.

Phasix™ Mesh has been used clinically since 2007 with

Improved healing from the start and predictable strength for the long run<sup>3</sup>

**Prevention through intervention**



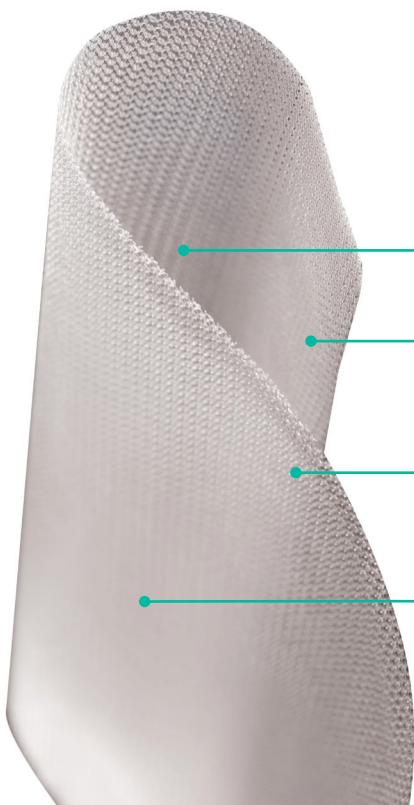
#### The burden of incisional hernia

Patients undergoing an elective or emergency midline laparotomy are at risk of developing an incisional hernia that can cause costly complications and leave lasting, negative effects on their quality of life.<sup>4</sup>

Phasix™ bioabsorbable mesh indicated for prophylactic use, is designed to protect your patient's quality of life after surgery<sup>3</sup>



**Phasix™ Mesh is:**



- A biologically-derived, fully resorbable material: Poly-4-hydroxybutyrate (P4HB).<sup>1</sup>
- Degraded into 4HB, a natural metabolite endogenous to the human brain, heart, kidney, liver, lung, muscle, and brown adipose tissue.<sup>12</sup>
- Produced from a naturally occurring monomer and is processed into monofilament fibers and knitted into a surgical mesh.<sup>12</sup>
- Bioabsorbed to essential completion by 12–18 months through hydrolysis.<sup>3</sup>

over 387,000 mesh implants globally.<sup>1</sup>

Let's repair the past.  
Let's prevent the future  
**Prevention is key**

- With the potential negative consequences associated with incisional hernias, patients benefit from preventative mesh placement.<sup>15</sup>
- Phasix™ is a reliable, long-term resorbable mesh used to reinforce surgical incisions and reduce the risk of incisional hernia.

**With rapid tissue ingrowth and long-lasting strength,<sup>1</sup> Phasix™ Mesh provides strong, reliable reinforcement when patients need it most.**

## Indications

Phasix™ Mesh is indicated to reinforce soft tissue where weakness exists, in patients undergoing abdominal, plastic, and reconstructive surgery in ventral hernia repair and other abdominal fascial defect procedures including prophylactic use to reinforce surgical incisions.

## Contraindications

Because Phasix™ Mesh is fully resorbable, it should not be used in repairs where permanent wound or organ support from the mesh is required.

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Product Code	Shape	Dimensions
1190100G	Round	3" x 3"
1190616G	Rectangle	2" x 6"
1190820G	Rectangle	3" x 8"
1190830G*	Rectangle	3" x 12"
1191040G*	Rectangle	4" x 16"
1190845G*	Rectangle	3" x 18"
1190200G	Rectangle	4" x 6"
1190300G	Rectangle	6" x 8"
1190400G	Rectangle	8" x 10"
1190500G	Rectangle	10" x 12"
1191025G	Rectangle	4" x 10"
1191525G	Rectangle	6" x 10"
1191530G	Rectangle	6" x 12"
1192030G	Rectangle	8" x 12"
1192040G	Rectangle	8" x 16"
1193045G	Rectangle	12" x 18"
1195050G	Square	19.5" x 19.5"
		50 x 50 cm

\* from august 2025

**Partner with BD today** and take this small but decisive step to protect both your patients and your practice from the impact of incisional hernias.



Scan here to learn more about the evidence of long term resorbable meshes

## References:

- 1 BD data on file. Based on preclinical testing. Results may not correlate to clinical performance in humans.
- 2 Chapter 7: Poly-4-hydroxybutyrate (P4HB) in Biomedical Applications and Tissue Engineering." Biodegradable Polymers Volume 2, by Kai Guo and David Martin, 2015 Nova Science Publishers, Inc, 2015.
- 3 Deeken, Corey R., and Brent D. Matthews. "Characterization of the mechanical strength, resorption properties, and histologic characteristics of a fully absorbable material (poly-4-hydroxybutyrate—PHASIX mesh) in a porcine model of hernia repair." ISRN surgery 2013 (2013).
- 4 Basta MN, et al. Can We Predict Incisional Hernia? Development of a Surgery-specific Decision-Support Interface. Ann Surg. 2019;270:544-553.
- 5 Scott, J. R., Deeken, C. R., Martindale, R. G., & Rosen, M. J. (2016). Evaluation of a fully absorbable poly-4-hydroxybutyrate/absorbable barrier composite mesh in a porcine model of ventral hernia repair. *Surgical endoscopy*, 30(9), 3691-3701.
- 6 Pineda Molina, et al. 4-Hydroxybutyrate Promotes Endogenous Antimicrobial Peptide Expression in Macrophages. *Tissue Eng Part A*. 2019
- 7 van Ramshorst GH, Eker HH, Hop WC, Jeekel J, Lange JF(2012) Impact of incisional hernia on health-related quality of life and body image: a prospective cohort study. *Am J Surg* 204(2):144-150
- 8 Martin, D. P., Badhwar, A., Shah, D. V., Rizk, S., Eldridge, S. N., Gagne, D. H., & Scott, J. R. (2013). "Characterization of poly-4-hydroxybutyrate mesh for hernia repair applications." *Journal of Surgical Research*, 184(2), 766-773.
- 9 Buell JF, et al. Initial experience with biologic polymer scaffold (Poly-4-hydroxybutyrate) in complex abdominal wall reconstruction. *Ann Surg*. 2017 Jul;266(1):185-188.
- 10 van Dijk, SM, et al. Parastomal Hernia: Impact on Quality of Life? *World J Surg* DOI 10.1007/s00268-015-3107-4
- 11 Data on File. Bruce Van Natta, MD Meridian Plastic Surgery and Galatea Surgical Inc, Alizee Project Number AFC14-076 Executive Summary Pathology Report; Human Galaflex™ Scaffold/tissue explant.
- 12 Martin, DP; Williams, SF. Medical applications of poly-4-hydroxybutyrate: a strong flexible absorbable biomaterial. *Biochemical Engineering Journal*, Volume 16, Issue 2, 2003. Pages 97-105, ISSN 1369-703X, [https://doi.org/10.1016/S1369-703X\(03\)00040-8](https://doi.org/10.1016/S1369-703X(03)00040-8).
- 13 TR-1110; Test Report: Effects of Implantation on P4HB Surgical Mesh; Approval date 10/4/2018, ECO No.: 1337, Written by: David Martin
- 14 TR-0057; Test Report: Effects of Implantation on Tephaflex Separation Mesh after SQ implant in Rabbits 78 w Final Results; Rev b, Effective Date 7-9-2016; ECO No.: 19798
- 15 Rhemtulla, Irfan A., et al. Prophylactic mesh augmentation: Patient selection, techniques, and early outcomes. *The American Journal of Surgery*, 2018.
- 16 Veljkovic, R., et al. Prospective Clinical Trial of Factors Predicting the Early Development of Incisional Hernia after Midline Laparotomy. *J Am Coll Surg* Vol. 210, No. 2, February 2010

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