SIMPLY SMART Symbotex[™] Composite Mesh for ventral hernia repair



Symbotex[™] composite mesh for ventral hernia repair



Smart design

Innovative mesh streamlines performance

- Exclusive 3-D mesh structure delivering reinforced textile strength¹ and significant tissue ingrowth support²
- Mesh transparency for improved anatomy visualization during placement³
- Established collagen bioabsorbable film technology with impressive resistance to surgical handling^{4,5}
- Comprehensive shape and size portfolio for small, medium, and large defects^{4,6}

Smart handling

Experience simplicity in hernia repair

- Designed for easy mesh deployment³
- Centering and orientation marking for accurate mesh positioning^{3,4,†}
- Abdominal wall clinging effect for simplified mesh placement^{3,7,‡}

Smart repair

Designed to offer your patients optimized hernia repair performance

- Excellent tissue integration®
- Minimized visceral attachment⁹
- Good level of neoperitonization and better minimizing tissue attachment compared with Bard Davol Ventralight™
 ST mesh¹0.5
- Helping to meet patients' physiological needs through balanced mesh mechanical properties^{1,11,12}

[†] If the mesh is not cut (refer to Instructions for Use).

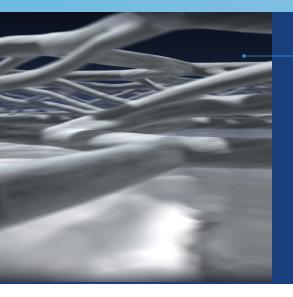
[‡]Except in cases where transfascial sutures are used as well as meshes in open approach.

Four weeks after implantation.

3-D monofilament macroporous textile Pore size¹³: 2.1 mm x 3.0 mm Density¹³: 64 g/m² Thickness¹³: 0.7 mm

Bioabsorbable collagen film4,5

Orientation marking



Exclusive 3-D mesh structure¹

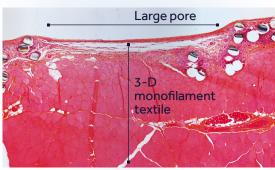
Stronger fixation with ReliaTack™ Articulating Reloadable Fixation Device ^{14,†}



Histological picture of mesh implantation at four weeks in an animal model¹⁵

- One week after implantation, mesothelial cells colonized the surface of the bioabsorbable film, which is intact and continuous. On the parietal side, several types of cells colonized the 3-D structure of the textile, including fibroblasts, which participate in the synthesis of the neo-collagen.
- Two weeks after implantation, mesothelial cells begin to degrade the bioabsorbable film. On the parietal side, the textile starts to be integrated into the abdominal wall, while keeping its 3-D structure and porosity.
- Four weeks after implantation, the mesh is integrated into the abdominal wall. No inflammatory reaction is observed.

†Benchtop testing based on commercially available absorbable and permanent fixation devices, which include the SECURESTRAP"*, SorbaFix", OptiFix", CapSure"*, ProTack", and ReliaTack" devices with standard purchase tacks when the shaft is angled at 30, 45, 65, and 90 degrees. ReliaTack" device deep purchase tack shear pull test performed in synthetic foam. Results may not correlate to performance in animal or cadaveric tissue, or performance in humans.



Histological section in a rat at four weeks

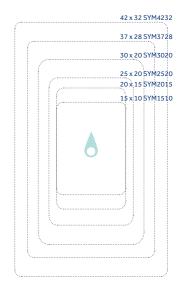


HERNIA CARE Mesh. Fixation. Permacol™. Dissection.

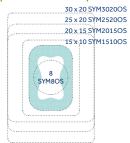
Our comprehensive product portfolio can enhance your hernia repair procedures.

Laparoscopic ventral repair (all sizes indicated in cm)









${\bf Contact\ your\ Medtronic\ sales\ representative\ and\ learn\ more\ at\ medtronic.com/symbotex}$

$\textbf{IMPORTANT:} \ Please \ refer to \ the \ package \ insert \ for \ complete \ instructions, \ contraindications, \ warnings \ and \ precautions.$

References

- 1. Based on internal benchtop test report #TEX044. October 2014.
- Cobb W, Lomanto D, Lecuivre J, et al; Hernia Center, Greenville Hospital System University Medical Center. Comparative analysis of the performance of a series of meshes based on weight and pore size in a novel minipig hernia model. Hernia. 2013;17(suppl1):S54.
- 3. Based on internal test report #0901CR252a, Preclinical study on pigs by surgeons for design validation of Symbotex™. June 2013.
- 4. Based on internal design validation report #0901CR249a, Results of an internally sponsored preclinical study carried out on a porcine model to validate the design of Symbotex" composite mesh. June 2013.
- $5. \quad \mathsf{Based} \ \mathsf{on} \ \mathsf{internal} \ \mathsf{design} \ \mathsf{verification} \ \mathsf{report} \ \#0901 \mathsf{CR247b}. \ \mathsf{July} \ 2013.$
- 6. Based on internal size and shape comparison chart.
- 7. Based on internal test report #0901CR261a, Observed clinging effect of Symbotex™ during design validation. July 2013.
- 8. Based on NAMSA report #162750, using a porcine model to evaluate local tissue effects and tissue integration of Symbotex composite mesh vs. Parietex optimized composite mesh after laparoscopic ventral repair. May 2013.
- Based on NAMSA report #162750, Local tissue effects, tissue integration and minimizing tissue attachment performance of Symbotex" composite mesh in a rat caecal abrasion model. May 2013.
- 10. Based on NAMSA report #163905, Symbotex* composite mesh vs. competitors in a pig bowel abrasion model. October 2013.
- 11. Lepere M, Zaranis C, Khalil H, et al. Two year results of incisional and primary ventral hernia repair with a novel three-dimensional textile composite mesh: The SymCHro registry study. Abstract presented in IHC Congress 2018.
- 13. Based on internal test report #TEX001. February 2017.
- 14. Based on internal test report #RE00010135-1, Relia Tack" device deep purchase tack shear pull test performed in synthetic foam. Results may not correlate to performance in animal or cadaveric tissue, or performance in humans. p-value=0.00. October 2015.
- 15. Based on NAMSA study #163905 and histological observations report #0901CR263a. May 2013.

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