

Optimal Design ..... Optimal Outcome

# SURGIMESH® XB

## Permanent Silicone Barrier/Non-Woven Microfiber Polypropylene Matrix

Barrier Mesh

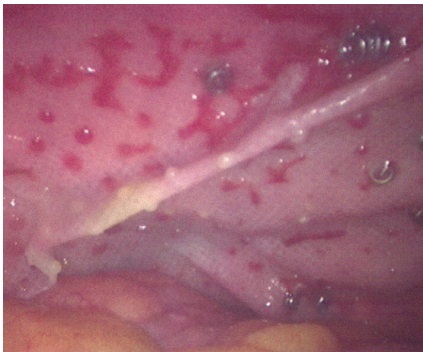


### Predictable Performance

- No Mesh Shrinkage <sup>2)</sup>
- Long Term Adhesion Resistance <sup>2,3)</sup>
- Complete Vascularized Incorporation @ 12 days
- Advanced Proprietary Technology
- Fully Trimmable - Easily Deployed

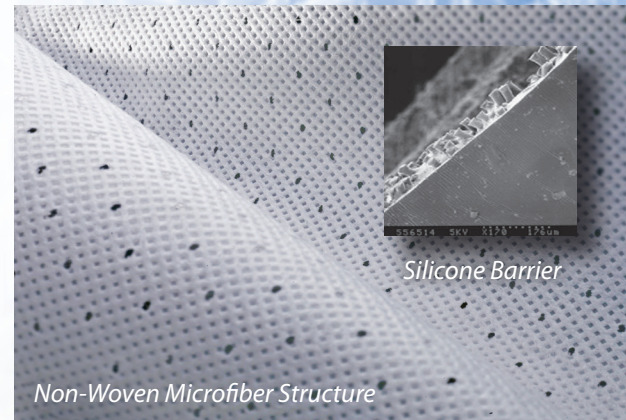


*SURGIMESH shows complete integration into surrounding tissues, minimal implant distortion and maintenance of the original implant geometry and size after 180 days <sup>5)</sup>*



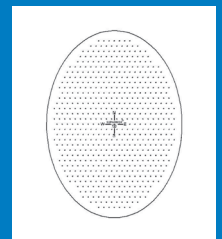
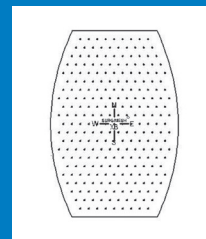
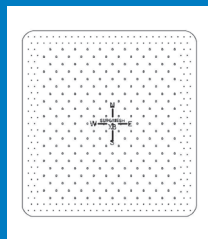
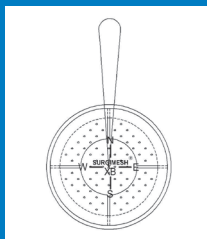
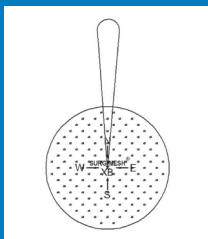
*Ventral hernia repair at 75 day re-look during subsequent procedure showing intact repair with no adhesion formation to SURGIMESH XB*

*- photo courtesy K. Mann, MD*



### Positive Outcome Improvements

- Reliable Adhesion Reduction
- Reduced Risk of Complication <sup>1,3)</sup>
- Comfortable, High Strength Repairs
- Reduced Risk of Recurrence <sup>3)</sup>



**BGMEDICAL**

Exclusive US distribution of SURGIMESH products

[www.surgimesh.com](http://www.surgimesh.com)

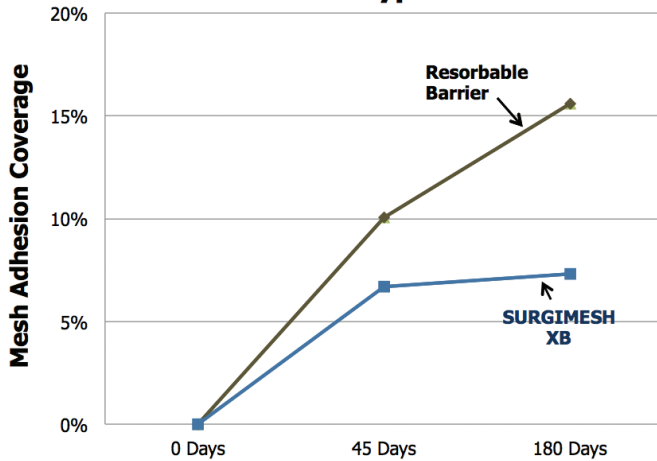
SURGIMESH is a trademark of Aspide Medical



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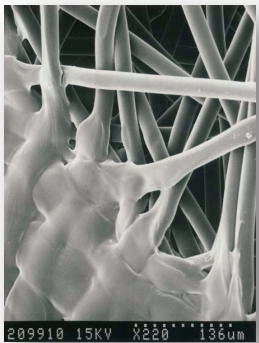
**Mesh Stability:** due to quick fibrous incorporation and stabilization by the silicone barrier, the XB non-woven, microfiber matrix has been found in testing <sup>2)</sup> and clinical use <sup>3)</sup> to be stable, with minimal mesh change and distortion, in contrast to what has been reported with knitted mesh constructions.

## Adhesion Formation vs. Barrier Type <sup>2)</sup>



Posterior abdominal wall rabbit adhesion model <sup>5)</sup>

**Tissue Incorporation:** complete and highly fibrous integration of XB into the surrounding muscle and fascial tissue planes produces repair sites which are reported <sup>4)</sup> to be flexible and comfortable post operatively.

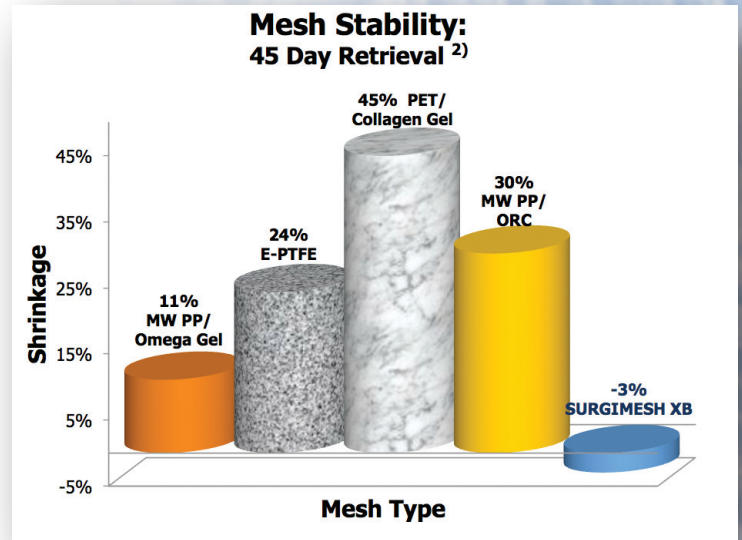


SURGIMESH Matrix

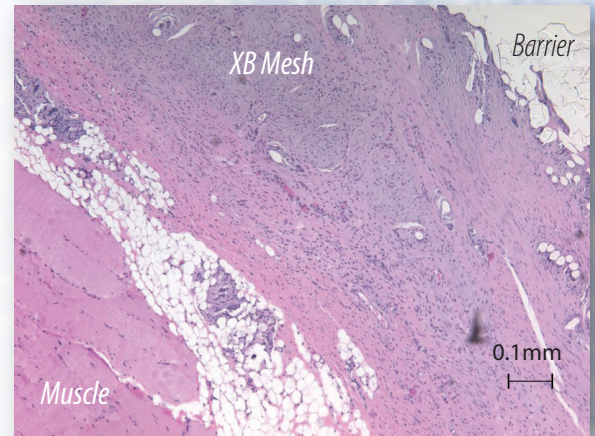
## Non-Woven Microfiber Matrix Mesh Technology

SURGIMESH products present a 3D matrix to tissues which allows complete and full incorporation of the mesh into surrounding tissues with sufficient vascularization to support the ingrown tissue. This is evidenced by histological cross sections which show full incorporation by 12 days. Being composed of non-woven microfibers of polypropylene, the tissue response to SURGIMESH is very diffuse, primarily being composed of fibrous connective tissue. This new type of structure represents a material which heals very strongly to surrounding tissues while remaining flexible and not leading to patient discomfort. Achieving full tissue incorporation helps integrate the matrix intimately into the surrounding tissues and protect the matrix in the event of microbial challenge.

- References:
- 1) Paradowski, T, et.al., Polypropylene vs. ePTFE vs. WN mesh for Lichtenstein inguinal hernia repair – a prospective, randomized, double blind pilot study of one-year follow-up, *VidSurg*, vol.4, p. 6, 2009
  - 2) Hoopes, P.J., et.al., Mechanical and Histomorphometric Assessment of Surgical Meshes, Dartmouth Surgical Research Lab, Data on file
  - 3) Yunis, J., Safety and Efficacy of Non-Woven Polypropylene with Permanent Silicone Barrier, In Press
  - 4) Surgeon Testimonials - SURGIMESH XB, Data on file
  - 5) Test model as used in Novitsky, YW, et.al., Comparative Evaluation of Adhesion Formation, Strength of Ingrowth, and Textile Properties of Prosthetic Meshes After Long-Term Intra Abdominal Implantation in a Rabbit, *J Surg Res*, vol. 140, p. 6-11, 2007



**Adhesion Formation:** exposure of barrier mesh to abdominal viscera for varying periods resulted in resorbable barriers increasing in surface adhesion coverage with time vs. permanent barriers such as the silicone of SURGIMESH XB which demonstrated consistent, low rates of adhesion <sup>2)</sup>.



Anterior abdominal wall rabbit model at 180 days post operative showing excellent fibrous incorporation of XB mesh <sup>5)</sup>, H&E stain