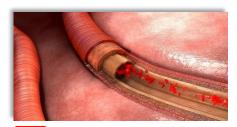


Invengenx® Bovine Pericardial Tissue Patch



Cardiothoracic

- Atrial septal defect
- Ventricular septal defect
- Defects of the thoracic wall
- Pericardial closure
- **Tetralogy of Fallot**
- Congenital chest wall defects



Vascular

- Venous ulcers
- Femoral endarterectomy
- **Carotid endarterectomy**
- Renal artery disease
- Abdominal aortic aneurysm
- Claudication



General Surgery

- Trachea repair
- Partial nephrectomy
- Peyronie's repair
- Rectovaginal fistula
- Esophageal Atresia
- Tendon repair

 $\mathbf{elixP}^{^{\mathsf{TM}}}$ fixated patches excel in the 4 major categories



Ultimate Tensile Strength



Suture Retention



Burst Strength



Elasticity & Elongation

Wide Variety of Sizes with Uniformity

Model	XM-04	XM-05*	XM-06	XM-07*	XM-08*	XM-09	XM-10*
Size (cm)	0.6 x 8	0.8 x 8	1 x 6	1 x 10	1 x 14	1.5 x 8	1.5 x 10
Model	XM-11	XM-12	XM-13	XM-14	XM-15	XM-16	XM-17
Size (cm)	1.5 x 16	2 x 9	2.5 x 15	4 x 4	4 x 6	4 x 16	5 x 6
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Model	XM-18	XM-19	XM-20	XM-21	XM-22	XM-23	
Size (cm)	5 x 10	6 x 8	6 x 10	7 x 10	8 x 14	10 x 16	

Size (cm) 5 x 10 6 x 8



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 Shah P. Ramasami H, Kamath S, Surya K, Bilgi KV, et al. (2024) Double Patch Repair for Complete Attrioventricular Septal Defect Using the Invengenx® Patch. Int J Cardiol Res
- Weiss, S., et al. "Self Made Xeno-Pericardial Aortic Tubes to Treat Native and Aortic Graft Infections." Journal of Vascular Surgery, vol. 66, no. 6, 2017, p. 1914., doi:10.1016/j.jvs.2017.10.007.
 Wiggins, Luke M., et al. "The Utility of Aortic Valve Leaflet Reconstruction Techniques in Children and Young Adults." The Journal of Thoracic and Cardiovascular Surgery, vol. 159, no. 6, 2020, pp. 2369–2378., doi:10.1016/j.jtcvs.2019.09.176.

Salient Features

- Plethora of applications
- Highly biocompatible
- **⊘** Intact Matrix Membrane
- Minimal rinsing time
- Occupance Conforms to vasculature
- Easy to handle
- **⊘** Cost-effective
- Uniform thickness
- Exceptional tensile strength
- Resists delamination
- Extremely elastic & Pliable
- Superior suture retention

Tisgenx, Inc. 15615 Alton Parkway, Irvine, CA 92618, USA

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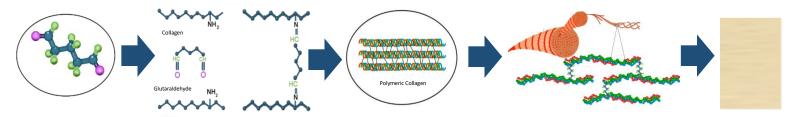
elixP[™] Tissue

What is $elixP^{TM}$?

At the heart of our innovative bovine pericardial tissue patch lies $\operatorname{elixP^{IM}}$, a cutting-edge processing technique that sets a new standard in medical technology. Our proprietary $\operatorname{elixP^{IM}}$ Fixation Technology is meticulously engineered to preserve the natural triple helical structure of collagen at both intramolecular and intermolecular levels. This breakthrough process ensures that the collagen molecules retain their intrinsic alignment and integrity, resulting in a tissue patch with superior mechanical strength and flexibility.

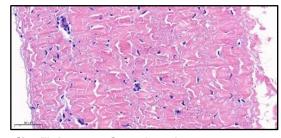
elixP[™] tissue technology

elixP $^{\text{TM}}$ Tissue Technology achieves a remarkable level of precision, with 100% crosslinking of collagen molecules. This unparalleled level of crosslinking is critical for ensuring the patch's stability and longevity. By solidifying the bonds within and between collagen fibrils, elixP $^{\text{TM}}$ effectively prevents issues such as suture line bleeding, delamination, and inflammatory responses. The result is a tissue patch that remains intact and functional throughout the healing process, minimizing potential complications and improving surgical outcomes. With elixP $^{\text{TM}}$, we eliminate antigenicity and maintain the natural collagen formation, providing a patch that boasts exceptional softness and durability.

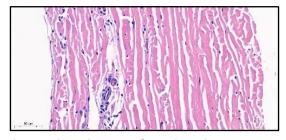


Clinical benefits and long-term results

Our advanced elixP™ tissue technology not only supports superior biocompatibility but also resists degradation, allowing Invengenx® to perform reliably across a range of surgical applications. The elixP™ methodology does more than just crosslink collagen—it transforms the collagen matrix into a superior material that is both highly durable and exceptionally flexible. This enhanced matrix allows for precise manipulation during application, offering excellent scaffolding and maintaining the natural pliability of the tissue. Surgeons can rely on Invengenx® for its ease of application and adaptability, knowing that it will conform perfectly to the surgical site and support effective tissue repair. The enhanced tensile strength and suture-holding capabilities of Invengenx® further contribute to its reliability and effectiveness. Invengenx® represents a significant advancement in tissue repair technology, offering a solution that medical professionals can trust for complex and critical procedures.



elixP™ tissue under H&E microscopy.Collagen pattern is almost identical to native pericardium.



Competitor tissue under H&E microscopy.
Large white gaps between collagen leads to infection and calcification.