tisgenx
Life, Next Now™

Invengenx® Bovine Pericardial Tissue Patch

Cardiothoracic Indications

- Atrial septal defect
- Closure of bronchial stumps
- Defects of the thoracic wall
- Mitral annulus repair
- Pericardial closure
- Pulmonary Stenosis
- Right ventricular outflow tract (RVOT)
- Ventricular septal defect

- Aortic Stenosis
- Atrium and ventricle repair
- Congenital chest wall defects
- Double Outlet Right Ventricle Surgery
- Intracardiac Defects
- Pulmonary valve repair & reconstruction
- Tetralogy of Fallot
- Ventricular septal defect

elixP™ 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-14	XM-15	XM-16	XM-17	XM-18
Size (cm)	4 x 4	4 x 6	4 x 16	5 x 6	5 x 10

Model	XM-19	XM-20	XM-21	XM-22	XM-23
Size (cm)	6 x 8	6 x 10	7 x 10	8 x 14	10 x 16

1. Bhende, Vishal V et al. "The Utility of Invengenx® Bovine Patch for Right Ventricular Outflow Tract (RVOT) Reconstruction and Augmentation in the Surgical Management of Tetralogy of Fallot (TOF): A Contemporary Study and Review of the Literature." Cureus vol. 15,10 e46882. 12 Oct. 2023, doi:10.7759/cureus.46882
2. Bhende, Vishal V et al. "Beyond Synthetics: Promising Outcomes With the Invengenx® Bovine Pericardial Patch for Ventricular Septal Defect Repair in a Young Pediatric Population." Cureus vol. 16,3 e55530. 4 Mar. 2024, doi:10.7759/cureus.55530
3. Shah, P., T. Dudde, S. Kamath, K. Surya, K. V. Bilgi, and R. Kupumbati. "Initial Experience of Using the Invengenx® Bovine Pericardial Tissue Patch for Common Arterial Trunk Repair". International Journal of Research in Medical Sciences, vol. 12, no. 7, June 2024, pp. 2722-3, doi:10.18203/2320-6012.ijrms20241941.
4. Shah P, Ramasami H, Kamath S, Surya K, Bilgi KV, et al. (2024) Double Patch Repair for Complete Atrioventricular Septal Defect Using the Invengenx® Patch. Int J Cardiol Res 13:2.
5. 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.
6. 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

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

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R08 Effective Date: 8/7/2025

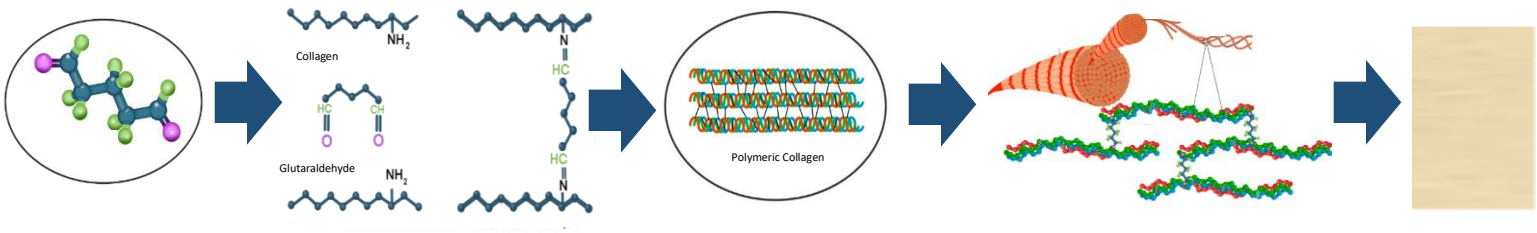
elixP™ Tissue

What is elixP™?

At the heart of our innovative bovine pericardial tissue patch lies elixP™, a cutting-edge processing technique that sets a new standard in medical technology. Our proprietary elixP™ 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.

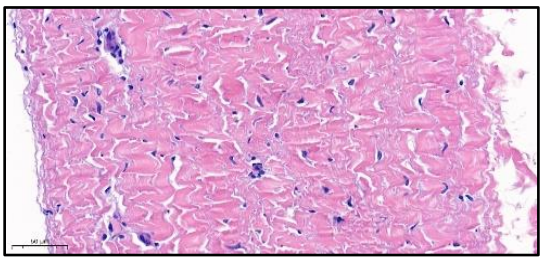
elixP™ tissue technology

elixP™ 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™ 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™, we eliminate antigenicity and maintain the natural collagen formation, providing a patch that boasts exceptional softness and durability.

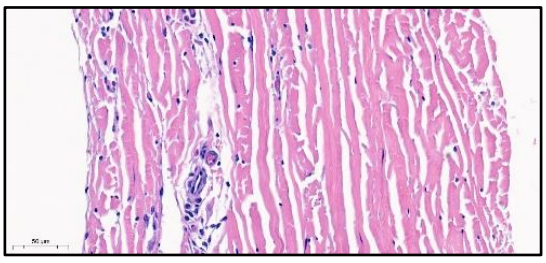


Clinical benefits and long-term results

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.