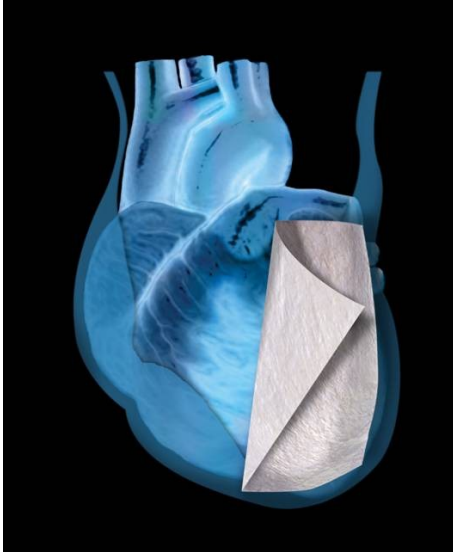


CORMATRIX[®] ECM[™] FOR PERICARDIAL CLOSURE



CorMatrix ECM for Pericardial Closure is cleared in the U.S. and CE Marked in Europe for the reconstruction and repair of the pericardium (the protective sac that surrounds the heart) during cardiac surgery.

CorMatrix ECM for Pericardial Closure has been implanted during nearly 20,000 cardiac procedures at more than 300 U.S. hospitals since its U.S. launch in 2006. The company launched CorMatrix ECM for Pericardial Closure in Europe in 2008.

Role of the Pericardium

An intact pericardium plays an important role, short and long term, for the patient, both anatomically and functionally. Animal studies show the intact pericardium contributes to normal ventricular filling

by providing passive restraint to the heart and protects underlying grafts and cardiac structures. The goal of CorMatrix ECM is to re-construct the pericardium, allowing for its contribution to normal physiologic function.

“We have used CorMatrix ECM to close the pericardium for the past two years... The ease of use and post-operative results of CorMatrix ECM make it an excellent option for pericardial closure.”

-- Douglas Boyd, M.D., UC Davis Health System,
Sacramento, CA

Clinical Feedback on CorMatrix ECM for Pericardial Closure

Positive clinical feedback on CorMatrix ECM handling characteristics, ease of placement, and suturability has been received from numerous cardiac centers. CorMatrix ECM is designed to be surgeon-friendly and similar in tactile characteristics to existing biological materials.

Studies utilizing extracellular matrix implants in other clinical applications have shown that the naturally occurring biomaterial serves as a scaffold for the constructive remodeling of native tissue structures, supports early and abundant new vessel growth, and is completely degraded and replaced by the host tissue over time. The extracellular matrix is enzymatically digested during the remodeling process and is excreted through the urinary system in about six months. Studies also indicate the extracellular matrix may be more resistant to bacterial infection than other non-absorbable synthetic

meshes.^{1,2,3}

Pericardial Closure in Adults

Post-operative CT scans on patients in which the pericardium has been closed have shown the re-established pericardial anatomy complete with normal pericardial space. Re-operation on a patient 12 months post-implant revealed a normal anatomical space between the anterior surface of the neo-pericardium and the retro-sternum. Dr. John L. Harlan, Dr. John B. Richardson, Dr. Parvez K. Sultan, and other members of their practice, Cardio-Thoracic Surgeons, P.C. in Birmingham, Alabama, have used CorMatrix ECM for closing the pericardium since November 2006.

Pericardial Closure in Children

Clinical experience in pediatric patients undergoing staged procedures has also been positive. On re-sternotomy of several pediatric patients, the protective pericardium was intact with few adhesions to the sternum. Histology has confirmed that CorMatrix ECM has been repopulated by host cells forming tissue similar to native pericardium with new blood vessels present. Dr. Frank Scholl of Joe DiMaggio Children's Hospital in Hollywood, Florida has been using CorMatrix ECM in children since July 2007.

Pericardial Closure in Patients with Ventricular Assist Devices (VADs)

Dr. Chris Salerno, with Corvasc MD's P.C. in Indianapolis, Indiana, has utilized CorMatrix ECM to close the pericardium on patients undergoing ventricular assist device (VAD) operations. The normal pericardial barrier in these patients has been successfully re-established.

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Pu L., Small intestinal submucosa as a bioactive prosthetic material for repair of abdominal fascial defect. *Plastic and Reconstructive Surgery* 2005; 115:2127-2131

² Record RD, Hillemonds D, et al., In vivo degradation of 14C-labeled small intestinal submucosa when used for urinary bladder repair. *Biomaterials*. 2001 Oct; 22(19):2653-9.

³ Badylak SF, Coffey AC, et al. Comparison of the resistance to infection of intestinal submucosa arterial autografts versus polytetra fluoroethylene arterial prosthesis in a dog model. *J Vasc Surg* 1994; 19: 465-72.