

Precision. Made simple.

Imaging solutions for
Structural Heart Disease

siemens-healthineers.us/structural-heart-disease



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Precision. Made simple.

Minimally invasive treatment of structural heart disease continues to grow as it offers lower risk, less trauma, and faster recovery than previously required open procedures. By maximizing the capabilities of your interventional environment, you can transform access to care, increase productivity, and deliver outcomes that matter to patients.

Together, the ARTIS icono and ARTIS pheno offer a complete solution for your Cardiovascular Department, whether you are performing structural heart cases in the cath lab or hybrid OR in order to accommodate various patient types and needs.



ARTIS icono

ARTIS pheno



Both ARTIS icono and ARTIS pheno offer leading real-time CT and Echo fusion imaging as well as compatibility with the first-to-market 4D Volume ICE catheter.

More than 4,000

Number of structural heart disease procedures that occur worldwide each day¹



Leverage ceiling-like capabilities with an affordable floor system

Cutting-edge robotic imaging with procedural intelligence

ARTIS icono



Revolutionary dose-image optimization and quality

Obtain your preferred image quality level while our ground-breaking OPTIQ imaging chain automatically adjusts for low dose.



Expedite your workflow with one-click Case Flows

Eliminate the need to adjust parameters manually for each pre-, intra-, and postprocedural step, personalized based on your preferences.



Next-generation open connectivity and communication

Connect relevant systems via standard protocols and a unified interface to support research and the development of new, in-house applications as well as integration with our Digital Ecosystem.

ARTIS pheno



Multidisciplinary room utilization to maximize your Hybrid OR suite

Effectively accommodates entire clinical team including anesthesia whether you are performing endovascular procedures or open surgery. Enables fluid movement around the patient as the pheno's base can quickly move out of the way.



Space and flexibility to accommodate the size and weight of any patient

Get close without feeling cramped with the widest-space C-arm available and a multi-tilt table with maximum load of 617 pounds—ideal for accommodating large patients. Flexible isocenter so the system operator experiences a comfortable working height.



Focused power for enhanced image quality

Our GigaLix tube with grid-pulsed flat emitter technology enables pristine, sharp visualization of devices while minimizing dose.

Confidently position and deploy valves

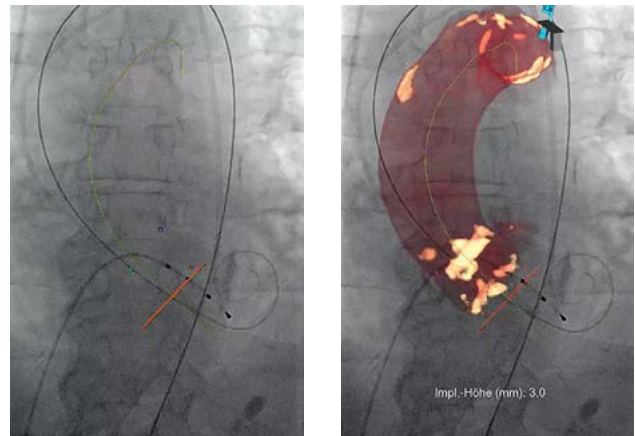
Leverage Siemens Healthineers leadership in intra-operative fusion, guidance software, and intracardiac echo catheter technologies to enhance your structural heart program.

With *syngo* Aortic Valve Guidance, you can:

- Save time by automating the segmentation of the aortic root and indicating anatomical landmarks.
- Optimize clinical operations with the automated selection of the perpendicular view plane and transfer of angulation data.
- Improve device navigation by overlaying imaging onto live fluoroscopy, which may also save contrast media.

With *syngo* 2D/3D Fusion, you can:

- Fuse preoperative CT, MR, or PET data with angiography for live image guidance.
- Simplify co-registration, which only requires 2 x 2D fluoro images.
- Save time with automatic updates for C-arm angulation, zoom factor, or table movement.

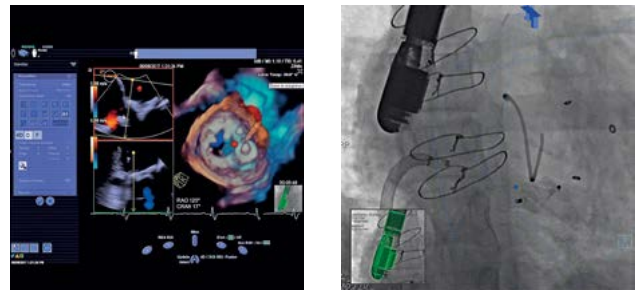


The three lowest cusp points define a circle as the projection plane. Its distance from the annulus can be changed to display the desired implantation height.
Courtesy of University Hospital Basel, Switzerland

Support more accurate closures in paravalvular leaks

Increase efficiency with targeted navigation from *syngo* TrueFusion.

- Focus on device navigation with functional information from TEE fused to fluoro in real time.
- Improve orientation and accuracy with direct export of anatomical landmarks from echo.
- Better understand valvular anatomy with one-click echo modeling that can be overlaid with fluoro



Fusion of paravalvular leak identified with TEE.
Courtesy of New York University Hospital, New York, USA

**20
million**



20 million people worldwide suffer from atrial fibrillation. They have a 5-fold risk of developing ischemic stroke.³

Real-time, CT-like imaging during left atrial appendage closures

Pre-procedural CT or MR images may no longer be required to visualize lesions and plan treatment strategies. With *syngo* DynaCT Cardiac, you can access cross-sectional images in the lab to better account for dynamic changes in anatomical structures.

- Create 3D visualizations of the LAA with its current blood-fill status with 5 second CT-like imaging during the procedure.
- Support a greater level of clinical confidence with high-quality 3D volumes for cardiac anatomy assessment even at virtually impossible angulations.
- Optimize clinical operations with 3D Wizard guidance for fast, easy, and intuitive acquisition.

Echo-based 3D imaging guidance such as *syngo* TrueFusion is also relevant for LAAC procedures and provides landmarks for transseptal puncture, determining the correct deployment angle, and positioning the occluder device.



syngo DynaCT Cardiac 3D volume overlaid on live fluoroscopy.
Courtesy of University Hospital Erlangen, Erlangen, Germany

Real-time volumetric assessment of intracardiac anatomy

The first-to-market ACUSON AcuNav Volume ICE catheter improves structural heart procedures with:

- Complete visualization of heart valves.
- An increased field of view.
- A safer approach to sedation with the option to use conscious sedation instead of general anesthesia.



At Siemens Healthineers, our purpose is to enable healthcare providers to increase value by empowering them on their journey toward expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing healthcare.

An estimated 5 million patients globally benefit every day from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics, and molecular medicine, as well as digital health and enterprise services.

We're a leading medical technology company with over 120 years of experience and 18,500 patents globally. With about 50,000 dedicated colleagues in over 70 countries, we'll continue to innovate and shape the future of healthcare.

The outcomes and statements provided by customers of Siemens Healthineers are unique to each customer's setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, and level of service/technology adoption), there can be no guarantee that others will achieve the same results.

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The information in this document contains general technical descriptions of specifications and options as well as standard and optional features, which do not always have to be present in individual cases.

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¹Decision Resources Group Medtech 360 and AT procedure tool (growth rate based on transcatheter procedures only)

²Susheel K, Kodali, et al. Two-Year Outcomes After Transcatheter or Surgical Aortic-Valve Replacement. *New England Journal of Medicine* 2012;366(18):1686–95. Available from: <http://doi.org/10.1056/NEJMoa1200384>.

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