

A medical professional in blue scrubs and a surgical cap is operating a Siemens Artis with PURE angiography system. The system's control panel, featuring several buttons and a red stripe, is visible in the foreground. In the background, a large monitor displays multiple live angiographic images of a heart, including a detailed view of the coronary arteries. Another medical professional is partially visible on the right side of the frame.

SIEMENS

Artis
with PURE®

Artis with
PURE®



[siemens.com/card-angiography](https://www.siemens.com/card-angiography)

Smart solutions for routine and advanced cardiac procedures

Siemens' broad portfolio for interventional cardiology

Staying on top of interventional cardiology

Interventional cardiology is becoming even more challenging. New procedures and devices are continuously introduced, resulting in ever-changing workflows. Both patients and staff are asking for the lowest possible dose during procedures, while clinical outcomes should be consistently improved and costs kept as low as possible.

In an increasingly competitive environment, you need versatile solutions that offer the latest capabilities for you to deliver better, faster, and more effective care – in complex procedures just as in your daily routine. Our dedicated solutions such as CLEARstent and CLEARstent Live or IVUSmap help you tackle the toughest challenges in coronary artery disease; whereas *syngo* DynaCT® Cardiac and *syngo* Aortic Valve Guidance seamlessly fit into your workflow when treating structural heart disease. Stay at the cutting edge of interventional imaging, with Siemens' comprehensive portfolio for interventional cardiology.

Not all features shown in this brochure are necessarily standard and available in all countries.





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Artis with PURE[®]

Adding smooth to smart.

In angiography, many physicians do not get to experience the full capabilities of their modern interventional systems as both procedures and system interaction get increasingly complex. The new PURE[®] platform for Artis zee, Artis Q and Artis Q.zen is changing this now: Adding smooth use to Siemens' smart technologies.

Increase your process efficiency in the cath lab, enable all your staff members to get the full potential of the system, and enhance your patient treatment outcomes – with an angio system that combines better ease of use, integrated expert therapy guidance, and tools providing better diagnostic information.

For a PURE[®] experience in angiography.

The logo consists of a white square containing the text "Artis with" in a small, dark font, and "PURE[®]" in a larger, bold, dark font below it.

Artis with
PURE[®]

Smooth interaction

Save time during procedures. Fewer steps. More efficiency.

Smart performance

Expand your capabilities. More confidence. Better outcomes.



Experience PURE[®]
Scan this code
or visit
[www.siemens.com/
artis-with-pure](http://www.siemens.com/artis-with-pure)

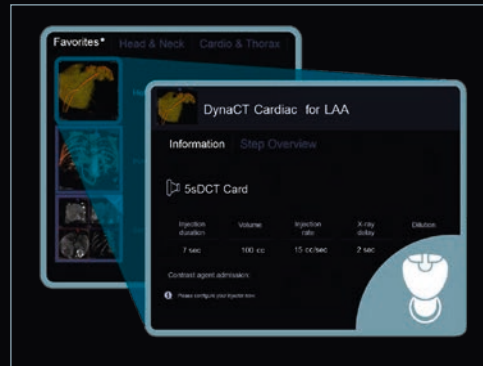
Some highlights of the PURE[®] platform:



Heads-up Display

Stay focused with context-sensitive On-Screen Menu

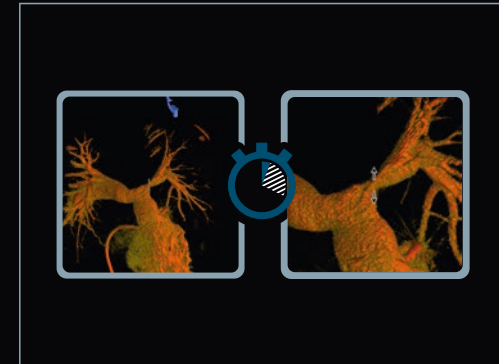
Focusing on the patient during procedures is a must in the angio suite. Access all relevant data and functionalities via the On-screen Menu on the Heads-up Display. Without the need to look down, keep your attention on the intervention and ease your procedure.



3D Wizard

Simplify 3D imaging with expert guidance

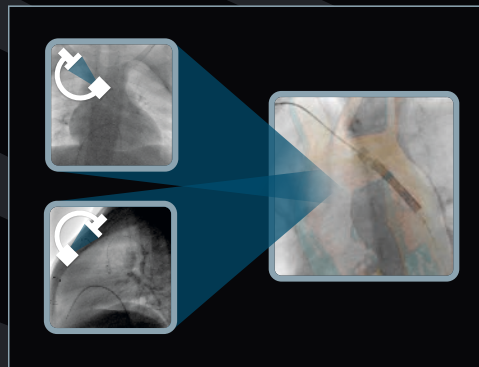
Choosing an optimal 3D protocol is not always easy. The 3D Wizard provides step-by-step expert guidance to achieve the desired imaging results. Increase your confidence when using 3D and get the full benefits from your system.



QuickZoom

Focus and zoom at tableside with just one click

Interacting with 3D volumes at tableside can be cumbersome. QuickZoom helps you save time and speed up your workflow. Click into your region of interest, and QuickZoom centers and zooms automatically, and even provides high-resolution refinement of your 3D volume.



syngo 2D/3D Fusion

Save 99% dose when integrating pre-op volumes for live image guidance*

Pre-op CT, MR, or PET data is often available, but remains unused in the angio suite. With *syngo* 2D/3D Fusion, only two fluoro projections are required to easily fuse 3D volumes from other imaging modalities for live image guidance. Expand your capabilities while saving radiation dose and contrast media.

* This measurement was performed with an Alderson phantom using fluoroscopy with 10 images per 2D projection and a low-dose 6s DCT body program. Results in actual clinical practice may vary.

Tools for Coronary Artery Disease

For diagnosis and treatment of coronary artery disease, you demand crystal-clear images of the moving heart and of challenging cardiac anatomies in any angulation. To spice up the challenge, dose has to be kept to a minimum even during complex procedures.

Our Artis systems deliver images in excellent quality and at low dose, displayed the way you like them best with CLEARchoice. And a wide variety of software tools such as CLEARstent and CLEARstent Live supports the toughest percutaneous coronary interventions. Find out how smart solutions from Siemens can support you in your routine and advanced procedures for coronary artery diseases.



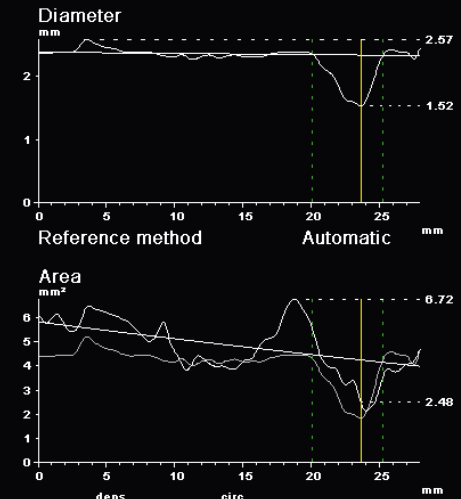
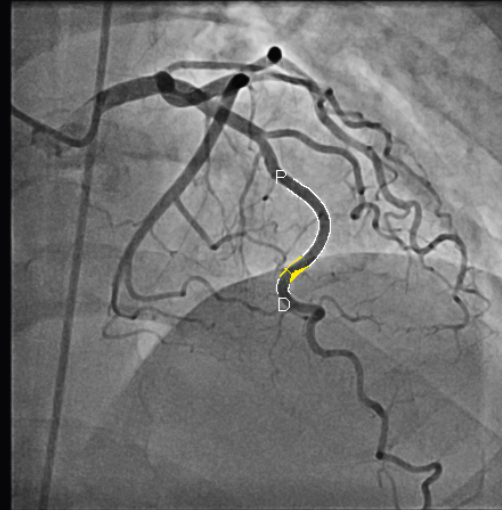


Quantitative Coronary Angiography

- Scientific measurement program integrated into the imaging system for clinically validated, objective, exact, and reproducible evaluation of coronary arteries
- Determination of degree of stenosis
- Automatic contour recognition
- Stenosis measurement with geometrical and densitometric calculations
- Automatic and manual determination of reference diameter
- Automatic and manual calibration

Scientific quantification and planning

Automatic Reference Analysis



IC_Q20X20_C46_RF9.12
 ID 9.12
 Sex Male
 Birth Date
 Accession Number
 Study ID 123456
 Physician
 Hospital The Valley Private Hospital
 Acquisition Date 4-2-2014
 Series Descr Coro HDR
 Frame Number 30
 Rot / Ang -4.10 ; 26.80 °
 Segmentname
 Trial Name
 Intervention
 Cal Factor 0.1317 mm/pix
 Cal Object 0.00 mm SiemensCal (TO...

Stenosis (%)
 %Diameter 35
 %Area Circ 57
 %Area Dens 42

Obstruction Segment

	Diameter (mm)	Area Circ (mm²)	Area Dens (mm²)
Lesion	1.52	1.82	2.48
Ref	2.33	4.27	4.27
Mean	1.90	2.90	3.44

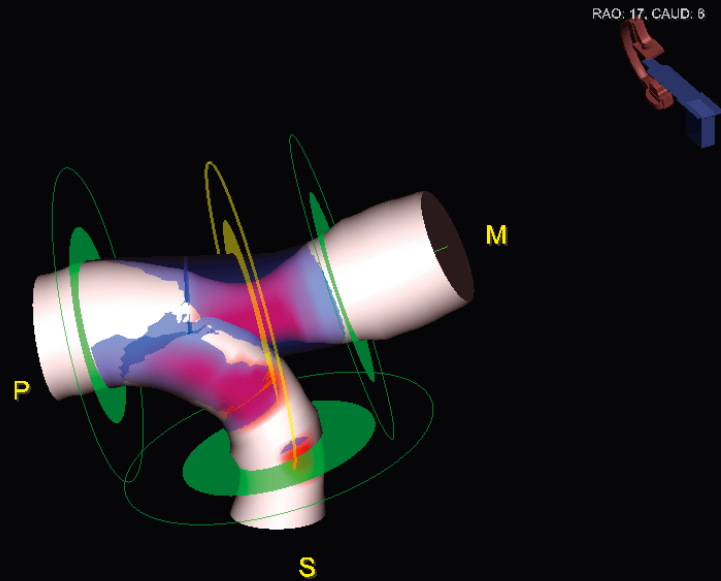
Prox D 2.34 mm
 Dist D 2.33 mm

Pos Prox 20.05 mm
 Obstruction Length 5.23 mm
 Obstruction Volume 15.15 mm³
 Plaque Area 2.49 mm²
 Plaque Volume 4.19 mm³
 Plaque Symmetry 0.06

QCA result of a left coronary stenosis of 65%

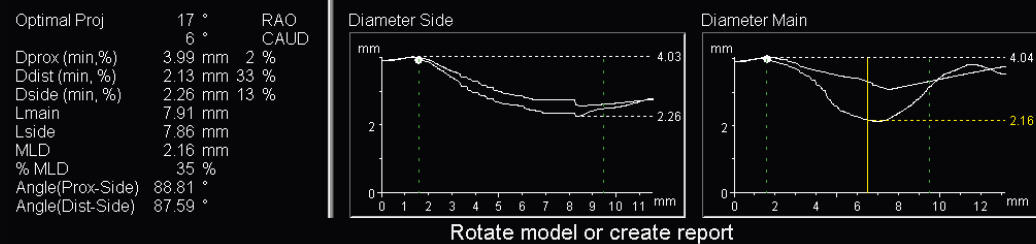
Courtesy of The Valley Private Hospital, Australia

3D visualization, quantification, and planning



syngo IZ3D

- Automated detection and 3D analysis of single and bifurcated coronaries from two angiographic images
- Easily visualize, quantify, and assess the vessel geometry with an interactive rendered view of the coronary artery
- Eliminates out-of-plane magnification and foreshortening errors and offers improved analysis of difficult lesions and segment anatomy
- Virtual stent planning for reliable guidance during the intervention



IZ3D model of a bifurcation lesion

Courtesy of Helios Auper Klinikum Dachau, Germany

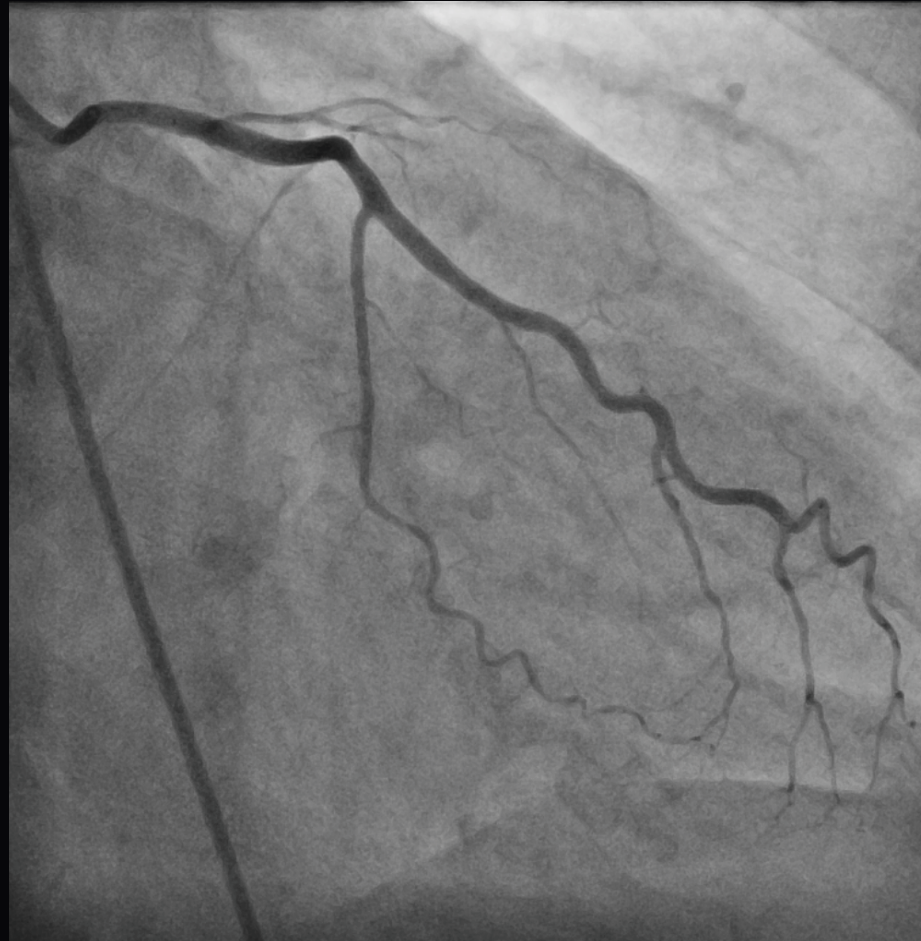
Low-dose Acquisition

- Dedicated low-dose acquisition programs saving up to 67% of dose compared to standard protocols for children, lighter built adults, and other dose-sensitive patients*
- Mapping to alternative acquisition pedal allows for quick and convenient access
- Automatically saved to scene directory for review and documentation purposes



*Nickoloff et al., Cardiovasc Intervent Radiol (2007) 30:168-176

Low-dose protocols for coronary interventions



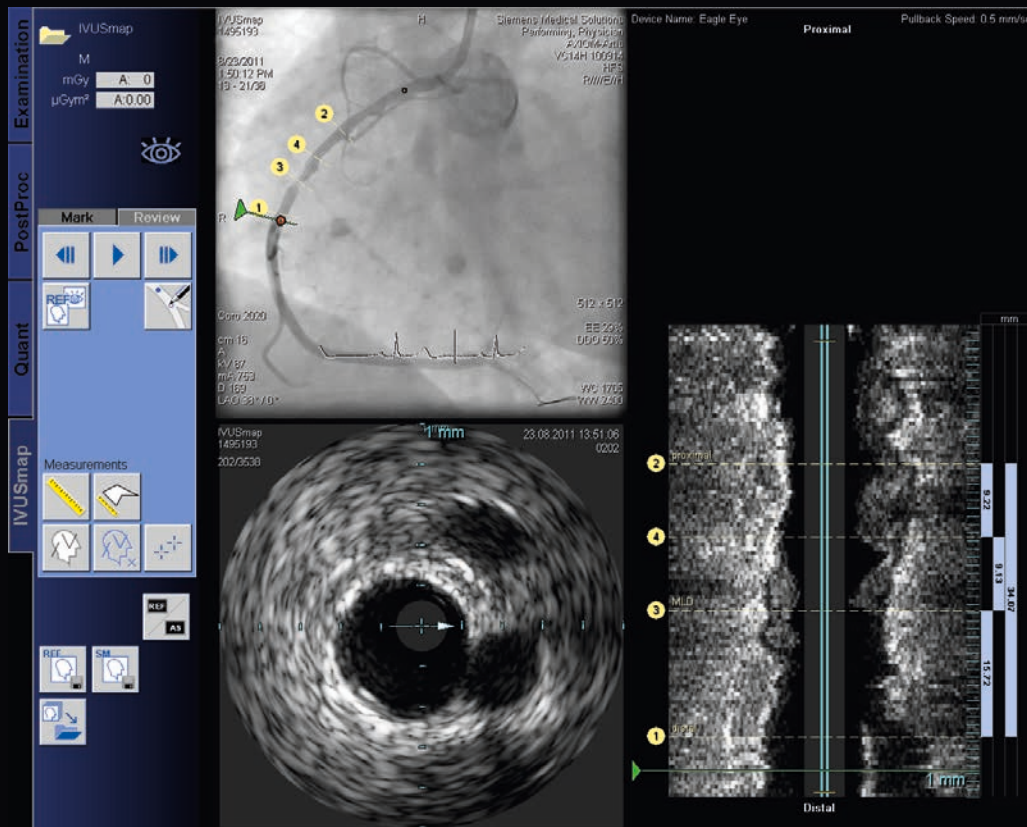
Routine diagnostic cardiac catheterization – increasing image quality while minimizing patient dose

Courtesy of Sunshine Coast University Private Hospital, Australia

Integrated co-registration of IVUS images with angiography

IVUSmap

- Combined information of angiography and IVUS imaging
- IVUSmap adds detailed information on vessel, lumen, and wall structure to angiography and provides spatial localization for intravascular ultrasound images within the coronary tree
- Bookmarks guide stent positioning and deployment



IVUSmap fuses the angio and IVUS image information

Courtesy of Erasmus MC, The Netherlands

CLEARstent

- Optimized image quality for post-deployment analysis and documentation
- Stent ROI to avoid cut-off images
- Available at footswitch with automated 5-second acquisition or use of pre-acquired images
- No separate workstation needed
- PACS compatibility for review of scenes using any DICOM viewer

Taking stent enhancement to the next level



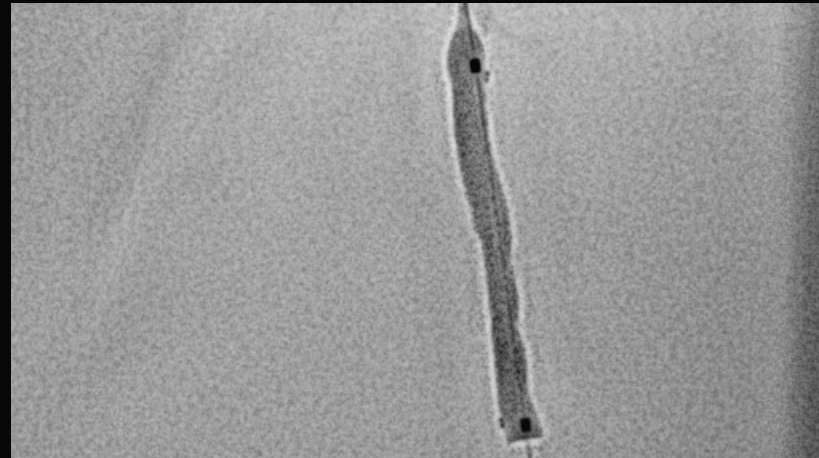
CLEARstent can help to detect stent fractures, which are hard to see on a standard angio

Courtesy of University Hospital Gießen, Germany



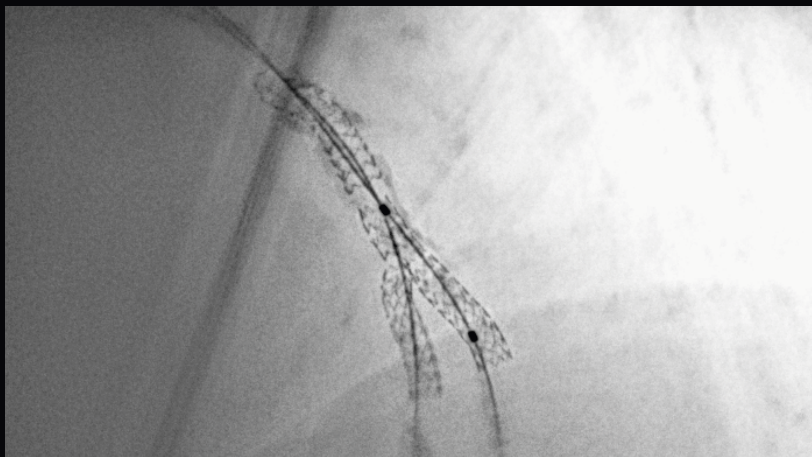
Underdeployed stent at the ostium of the LCA

Courtesy of I.R.C.C.S. Policlinico San Donato, Italy



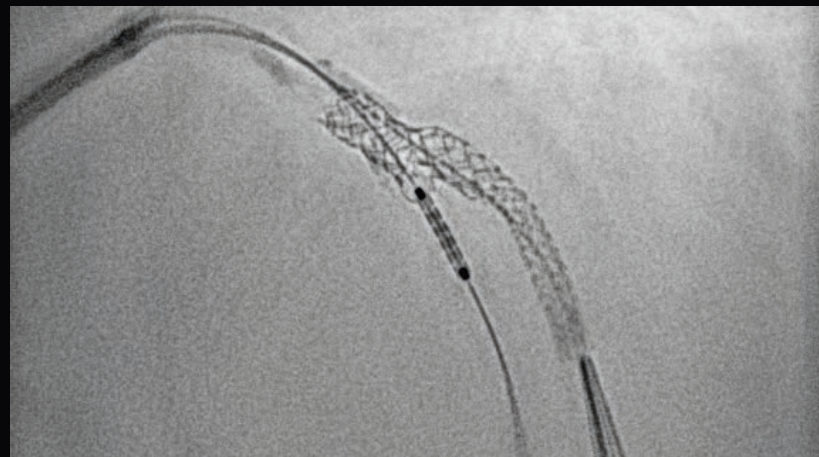
CLEARstent for Scaffold deployment in the LCA

Courtesy of University Hospital Erlangen, Germany



Gap between two stents in a bifurcation

Courtesy of University Hospital Erlangen, Germany



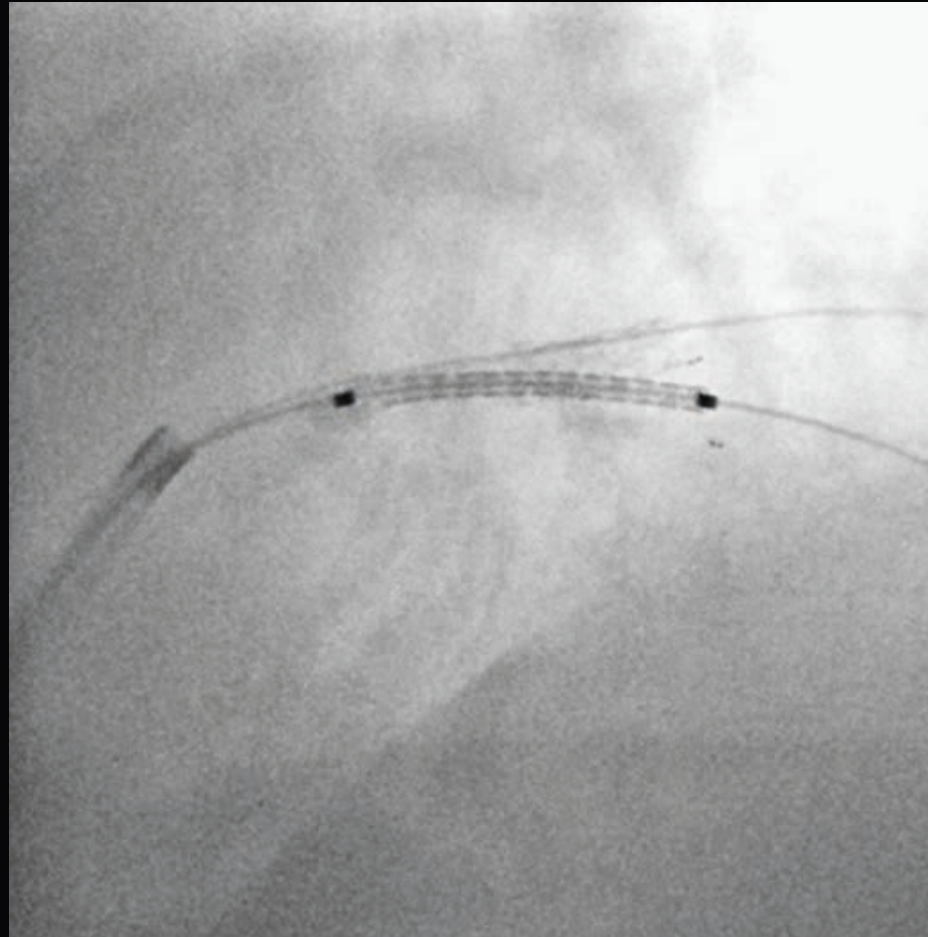
Stent positioning in a bifurcation

Courtesy of University Hospital Erlangen, Germany

CLEARstent Live

- Real-time verification of stent positioning while moving the device
- Support of complex procedures like bifurcation lesion stenting
- Potential to speed up procedures and to save contrast agent and radiation

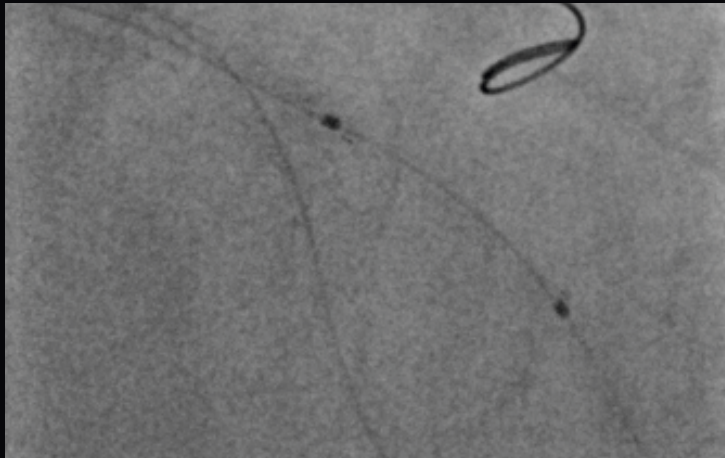
Real-time stent enhancement



CLEARstent Live can be used to position a second stent or scaffold more precisely

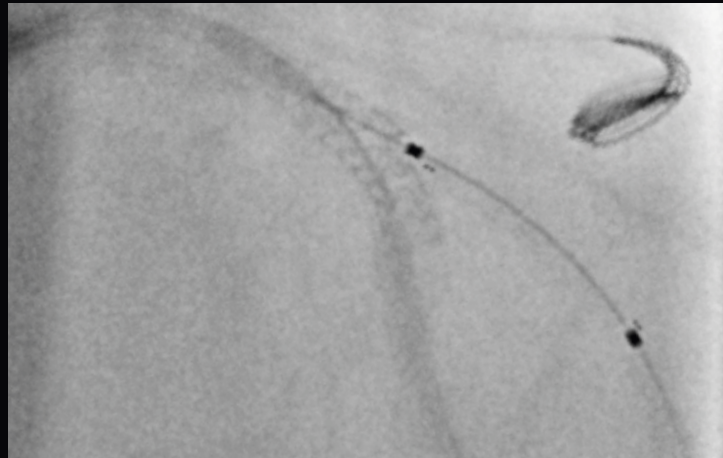
Courtesy of University Hospital Erlangen, Germany

Live monitor

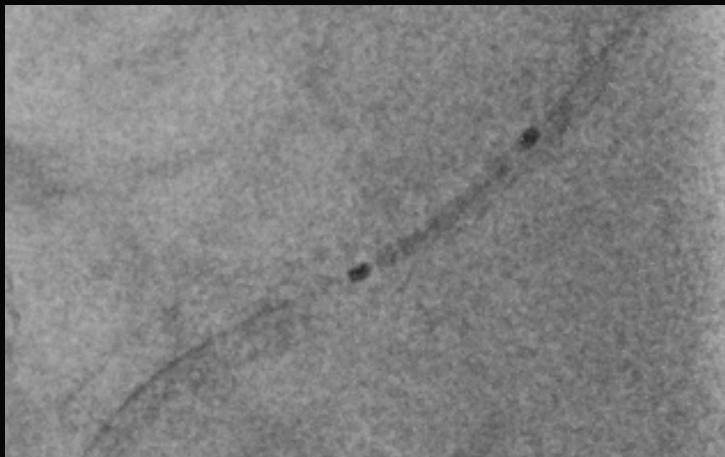


Scaffold positioning in a bifurcation without CLEARstent Live

Reference monitor



Scaffold positioning in a bifurcation with CLEARstent Live



Stent positioning in a long lesion without CLEARstent Live



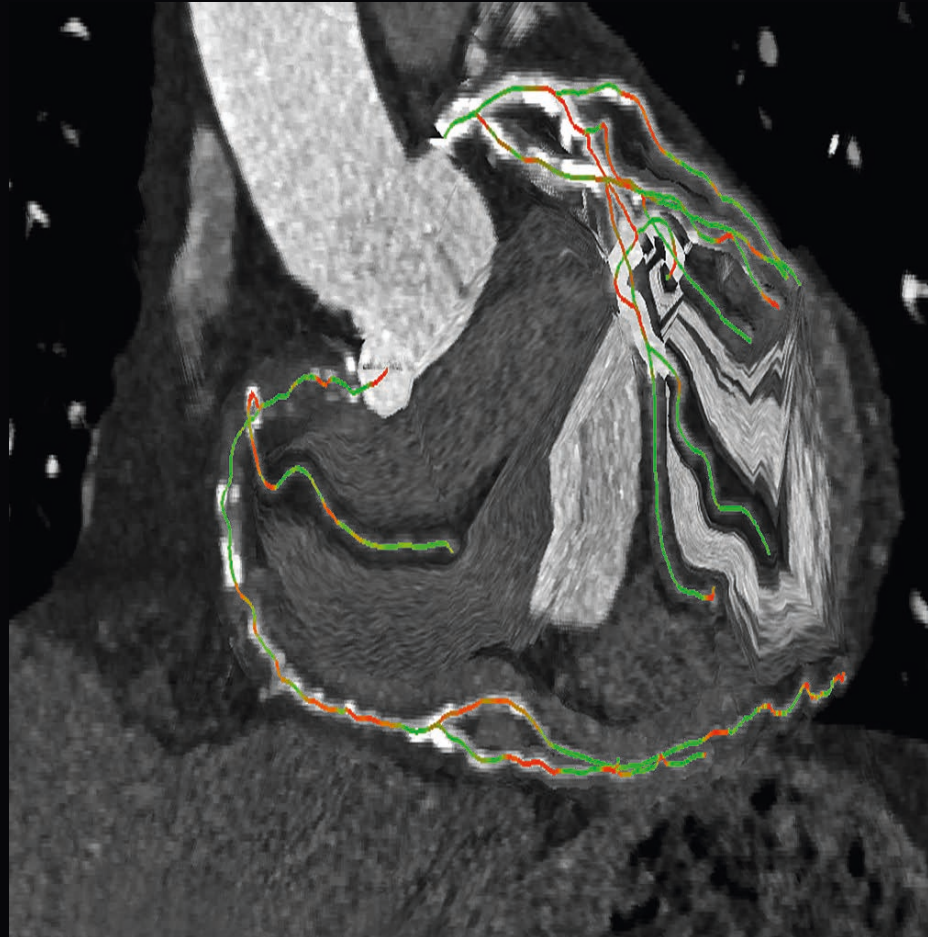
Stent positioning in a long lesion with CLEARstent Live

All images courtesy of University Hospital Erlangen, Germany

syngo CTO Guidance

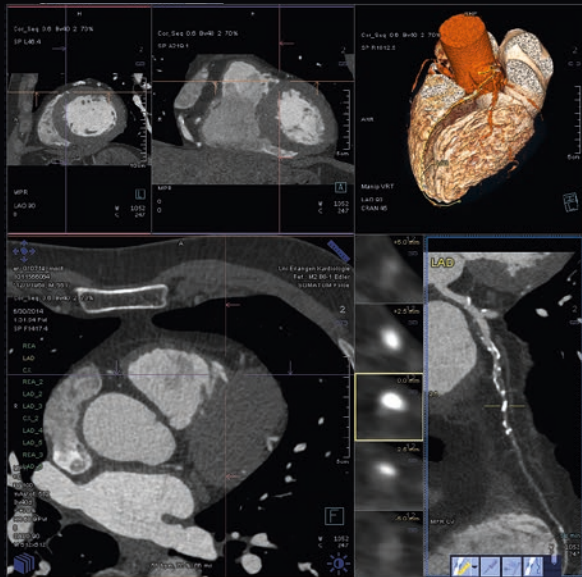
- Automated segmentation of the coronaries, centerline extraction, and color-coding of the centerlines
- Color-coding indicates foreshortening of the vessel segment, allowing optimal angulations of the lesion segment to be selected before the actual procedure begins
- Color-coded centerlines are used for registration during the case, so fewer angiography images are needed
- Side-by-side visualization of syngo CTO Guidance software and live fluoroscopy can help reduce procedure time and radiation dose

Expand your procedure mix by treating more CTO patients

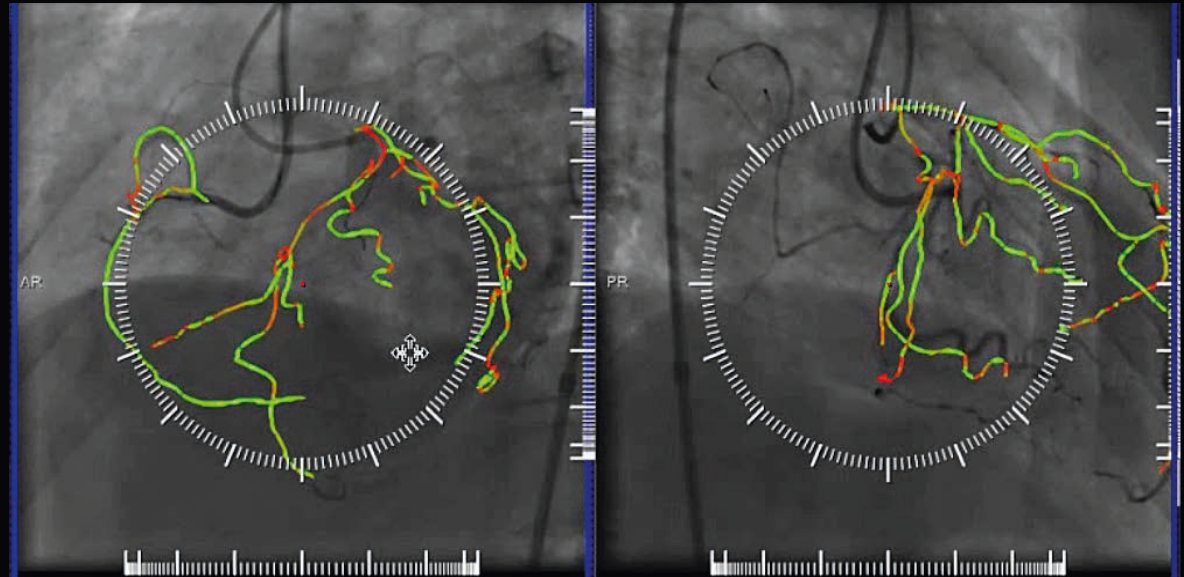


Automated segmentation of CTA and color-coded centerlines enable better planning of CTO PCI

Courtesy of University Hospital Erlangen, Germany



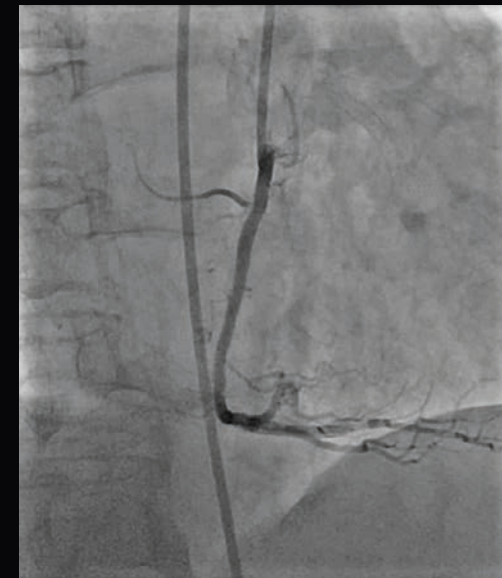
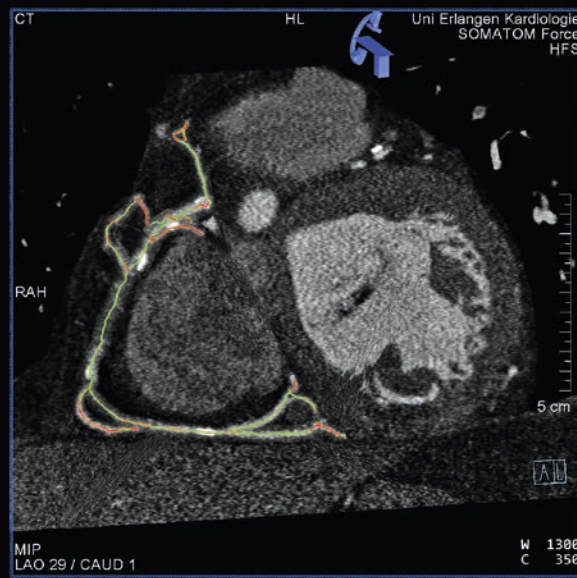
Coronary CT angiography showing a CTO of the LAD



Color-coded centerlines registered with two angiograms



Side-by-side guidance with syngo CTO Guidance



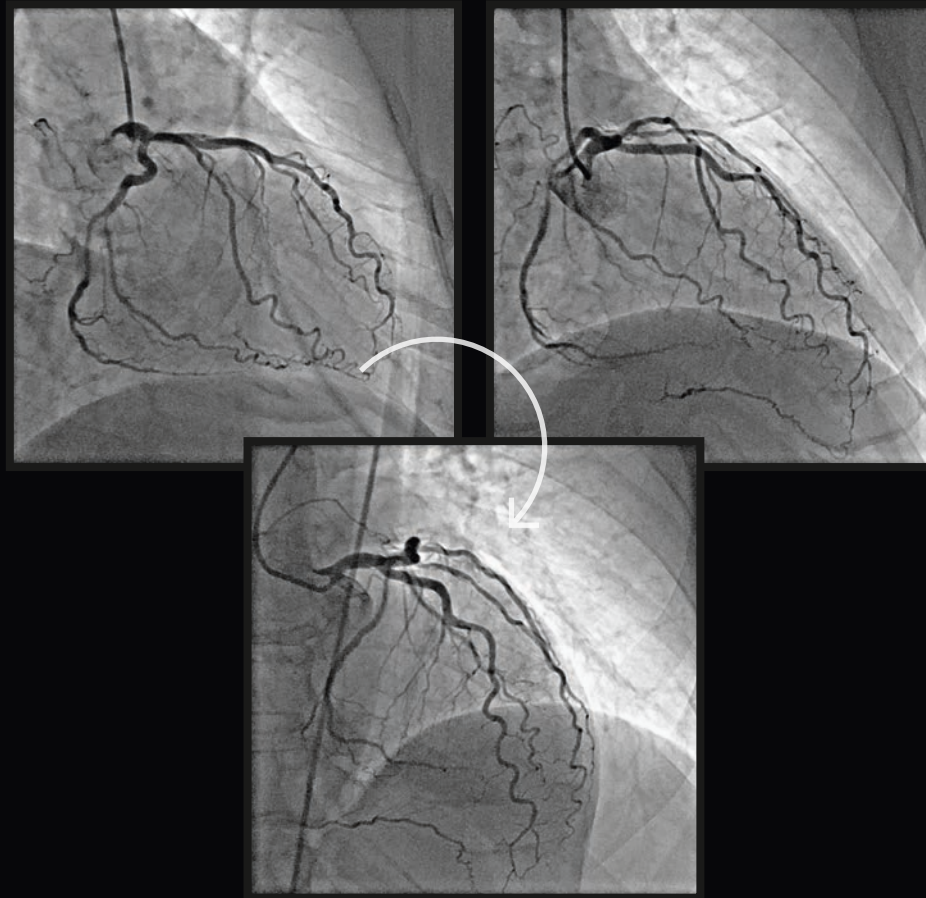
Final result after recanalization of the LAD

All images courtesy of University Hospital Erlangen, Germany

HeartSweep

- HeartSweep acquires the left or right coronary artery (LCA/RCA) from every angle in only 5 s with only one contrast injection. This is particularly beneficial for patients with poor kidney function.
- One single HeartSweep run covers all standard coronary diagnostic projections, allowing you to quickly assess the coronary vessels afterwards

Speed up diagnostic coronary examinations and save contrast agent



HeartSweep images of the left coronary artery showing significant stenosis in the LAD

Courtesy of University Hospital Erlangen, Germany

Cardiac image review and post-processing software

ACOM.PC

- ACOM.PC turns every standard PC into a professional cardiac review workstation
- Integrates into departmental IT
- Review of previous studies during ongoing examinations



Dual-monitor review setup with ACOM.PC

Courtesy of University Hospital Frankfurt, Germany

Tools for Structural Heart Disease

Treatment options for structural heart disease (SHD) are flourishing at a fast pace with the development of new devices, hardware, and software. These technological innovations can replace surgical procedures with percutaneous interventions, often allowing treatment of patients not eligible for surgery. This leads to new challenges for physicians and their team – as well as for imaging in terms of workflow or multi-modality integration.

Siemens' *syngo* DynaCT Cardiac has revolutionized cardiac imaging, bringing intra-procedural 3D visualizations of the cardiac chambers and vessels of the beating heart into the cath lab. The 3D information can be used for planning and guidance during the intervention. Dedicated workflow support tools facilitate procedures like transcatheter aortic valve implantation (TAVI), mitral procedures or left atrial appendix closure (LAA). Find out how our solutions can support you in the dynamic and fast-changing environment of SHD treatment.





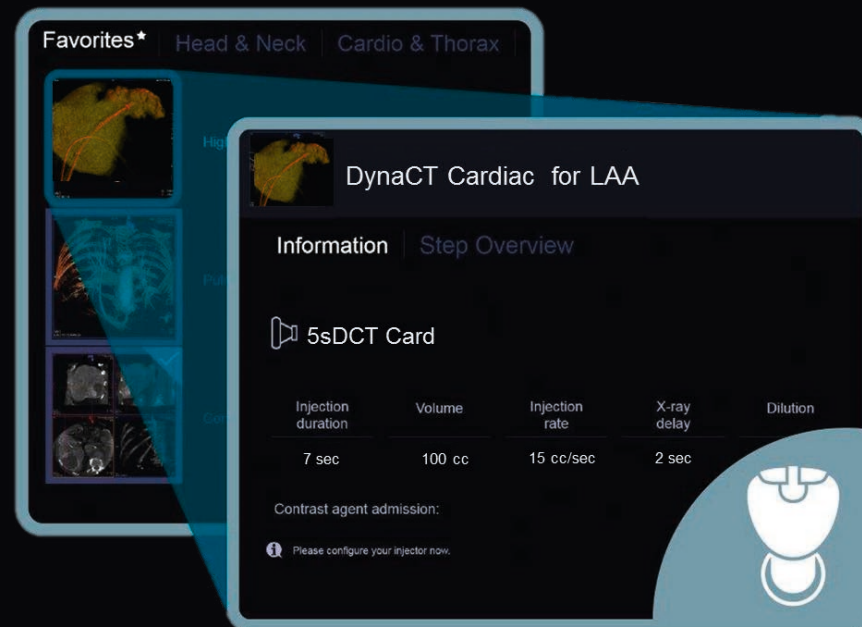
3D Wizard

Siemens
only

- Choose the desired image result from a pool of possible cases and let the system guide you through the acquisition
- Provides all required parameters for a 3D scan including protocol recommendation at the time you need them
- Supports definition and establishment of clinical and departmental standards (e.g. for clinical studies, quality assurance, etc.)

Artis with
PURE®

Simplify 3D imaging with expert guidance



3D Wizard showing the injection protocol to visualize the LAA

Courtesy of University Hospital Erlangen, Germany

High-contrast 3D acquisition and visualization



3D reconstruction of the aortic root acquired with the Artis zee

Courtesy of Herzzentrum Leipzig, Germany

syngo Dyna3D

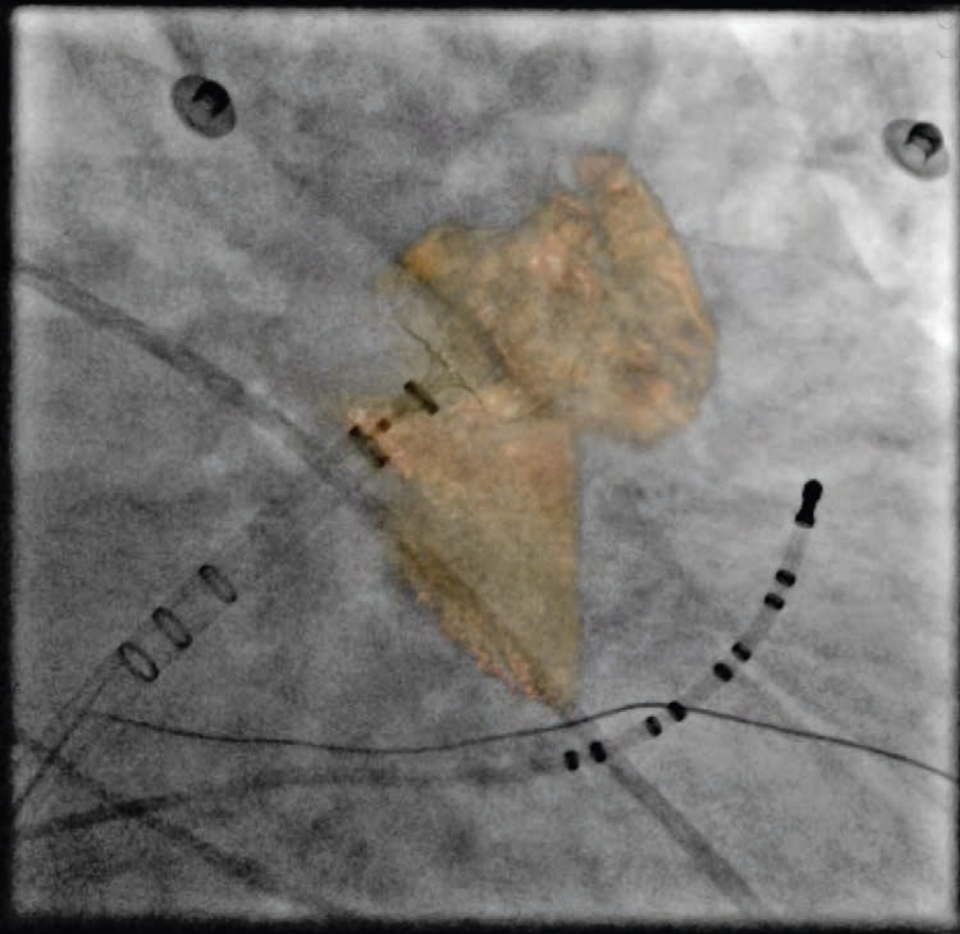
- Automatic reconstruction with user-defined presets after a 5 seconds rotational angiogram – no manual post-processing necessary
- Fewer images needed compared to *syngo* DynaCT Cardiac, reducing patient dose
- Full 3D control from tableside
- Real-time update of 3D view with C-arm movements
- Simply select your desired 3D imaging result using the 3D Wizard, and the system will guide you through the acquisition step by step

Artis with
PURE®

syngo DynaCT Cardiac

- Create ungated and ECG-gated CT-like images of the heart in 5 seconds in your cath lab using rotational angiography
- High-quality 3D volumes for cardiac anatomy assessment, measurements, and procedure planning, even at virtually impossible angulations
- Additional tool for procedure planning and guidance during the procedure by overlaying 3D onto 2D, and fusing 3D volumes from other modalities like CT, MR or PET

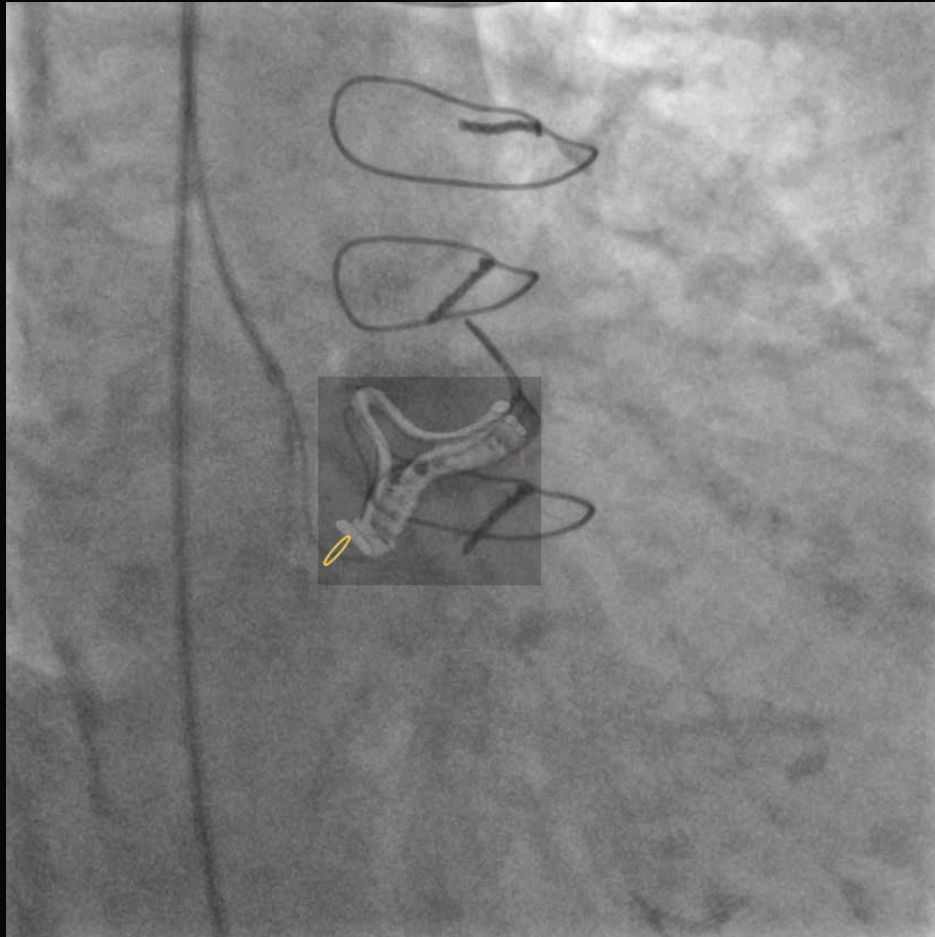
CT-like imaging of the heart during the procedure



3D reconstruction of an LAA for a subsequent closure procedure

Courtesy of Augustinum Munich, Germany

Expert guidance with 3D data sets overlaid onto 2D live images



Paravalvular leakage marked in the pre-acquired CT and overlaid with syngo 3D Roadmap for precise guidance during the closure

Courtesy of University Hospital Erlangen, Germany

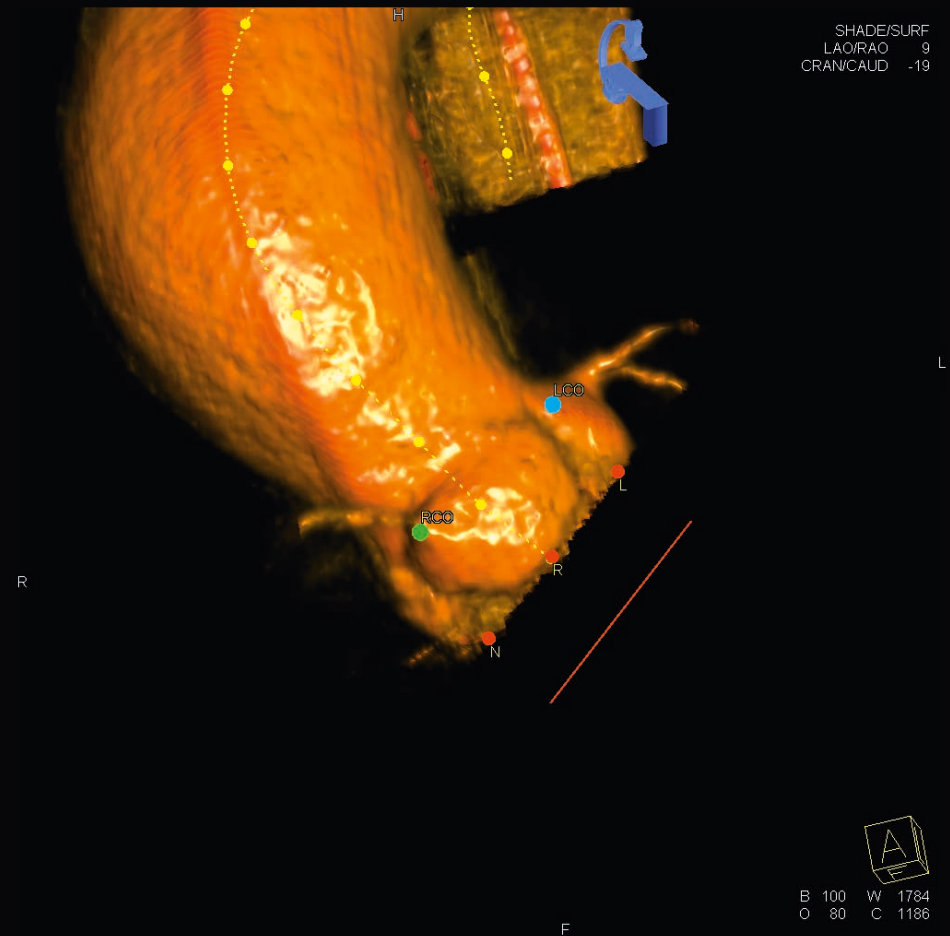
syngo 3D Roadmap and syngo Toolbox

- Overlay of pre- and intra-procedurally acquired 3D volumes onto live fluoroscopy or acquisition
- 2D overlay of points of interest within 3D volumes created before or during a procedure
- Image guidance during structural heart interventions like TAVI, LAA closure or paravalvular leakage closure with a potential reduction of contrast media, dose, and examination time
- Changes in C-arm angulation or zoom or table movement are automatically updated

syngo Aortic Valve Guidance

- Automatic segmentation of aortic root, indication of anatomical landmarks, and optimal orthogonal view plane in less than 30 seconds
- Automated selection of perpendicular view plane and transfer of angulation data for high precision during valve implantation and to avoid paravalvular regurgitation
- Image guidance by overlaying landmarks and 3D structures onto live fluoroscopy or a CT dataset

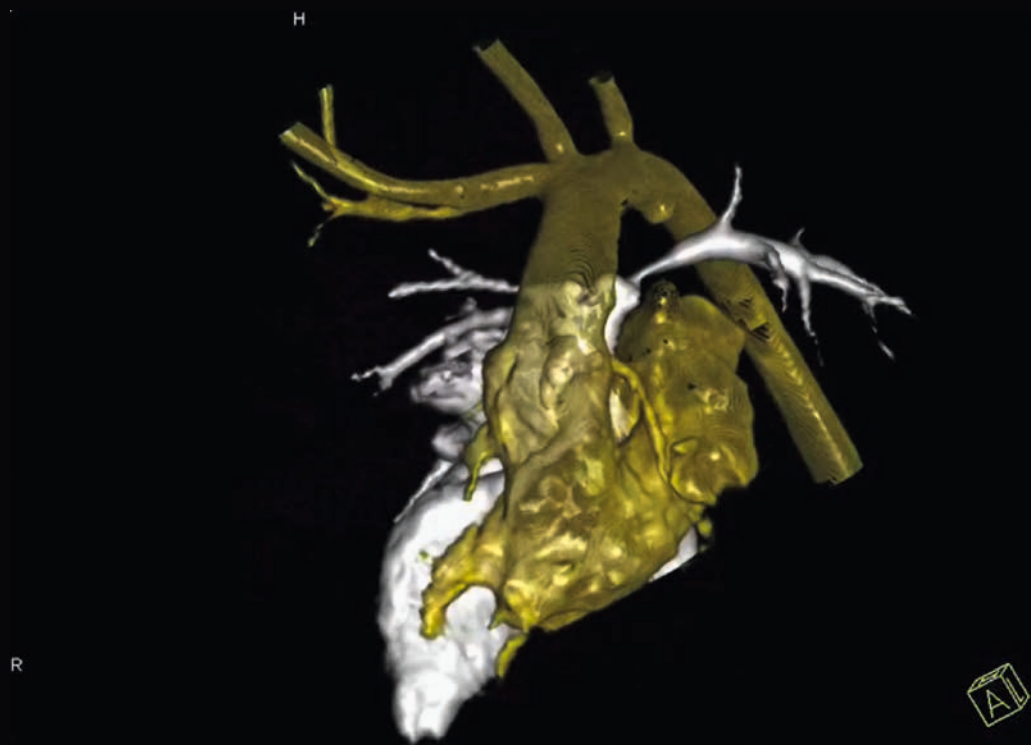
Automated workflow and enhanced accuracy for aortic valve procedures



Automatic reconstruction of the aortic root including indication of the important anatomical landmarks in a perpendicular view

Courtesy of Herz- und Kreislaufzentrum Rotenburg a.d. Fulda, Germany

Dedicated low-dose *syngo* DynaCT protocol



Dual Volume 3D reconstruction in a 2.4 kg newborn with complex single ventricle hemodynamic and occlusion of a central AP shunt with an effective dose of 0.3 mSv

Courtesy of WKZ Utrecht, The Netherlands

Low-dose *syngo* DynaCT

- Dedicated low-dose protocols with up to 72% less dose compared to adult protocols*
- Excellent imaging results at only 0.1 mSv effective dose
- Better understanding of the anatomy in dose-sensitive patients like in congenital heart disease
- Perform accurate *syngo* 2D/3D Fusion or *syngo* 3D/3D Fusion at low dose values



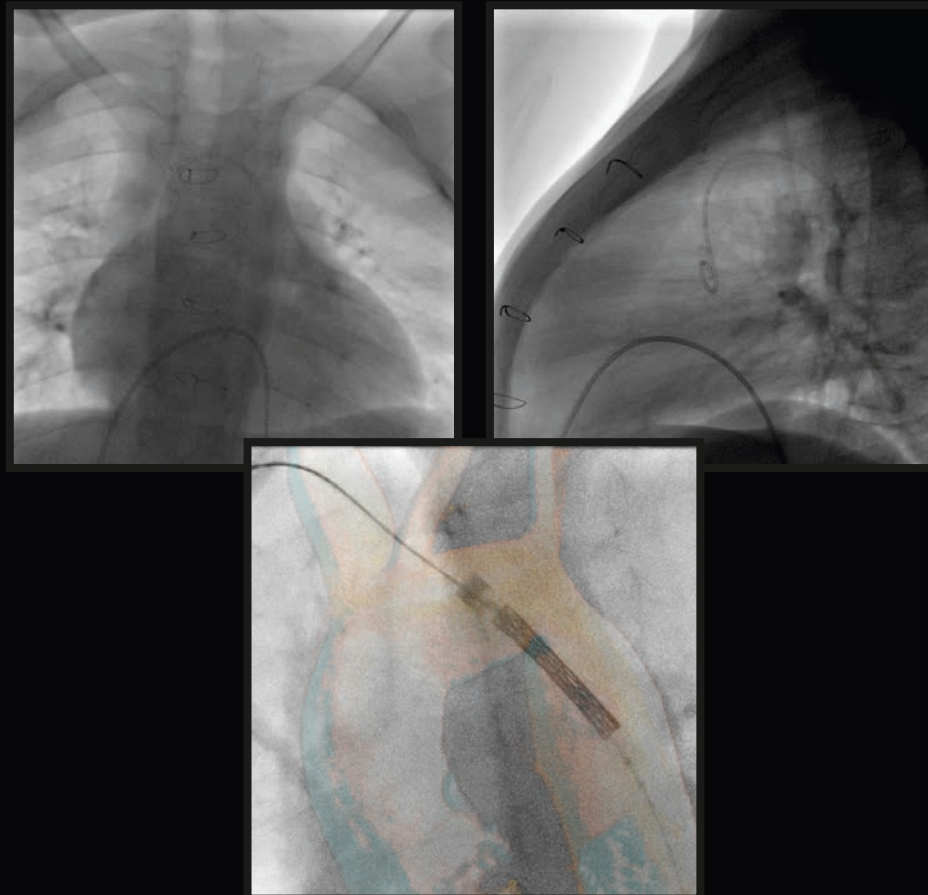
*Reinke G, ... Dittrich S, Glöckler M, Open Journal of Radiology, 2013, 3, 124-129

syngo Fusion Package

- Make the most out of available pre-procedural information and avoid additional radiation dose and contrast injections for repeat scans
- Bring the advantage of other imaging modalities (CT, MR or PET) into your cath lab with syngo Fusion Package
- Get the new syngo 2D/3D Fusion application and overlay data from other modalities for guidance and additional confidence during ongoing procedures

Artis with
PURE®

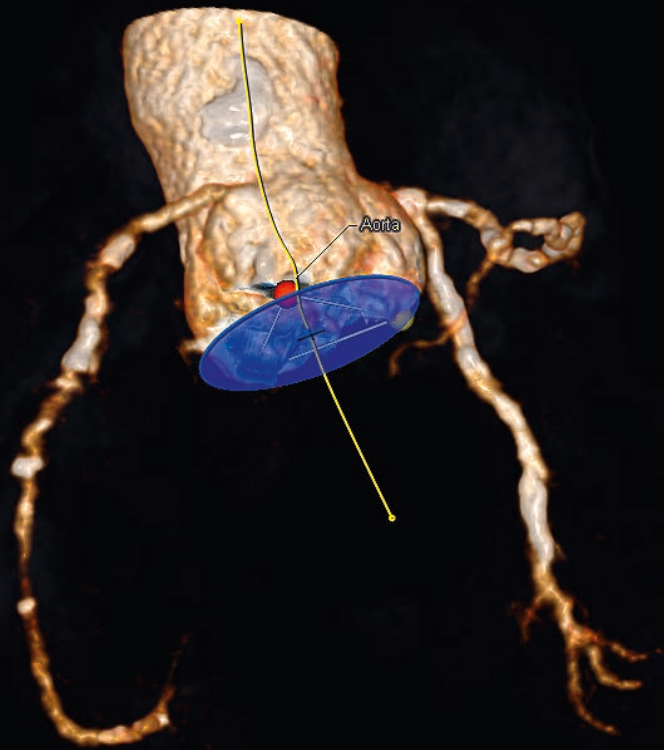
Multimodality information – integrated into your workflow



syngo 2D/3D Fusion was used to register a pre-acquired MR dataset for guidance during the coarctation stenting

Courtesy of University Hospital Erlangen, Germany

Advanced CT imaging and applications for optimal TAVI procedure planning



Dual Source CT (DSCT) technology

Siemens only

- State-of-the-art cardiac and vascular imaging for fast and accurate pre-procedural planning, e.g. in structural heart procedures
- DSCT is especially relevant for frail TAVI patients. It provides all relevant information in one scan with one injection of contrast agent
- syngo.CT Cardiac Function – Valve Pilot for optimal device sizing and implantation angulation. Allows for zero-click segmentation and zero-delay quantitative assessment of the aortic annulus and height of coronary ostia
- 3D volumes acquired from CT can be overlaid on live 2D angio images for additional guidance during device implantation

syngo.CT Cardiac Function – Valve Pilot was used for quantitative assessment of aortic annulus for optimal device sizing and implantation angulation

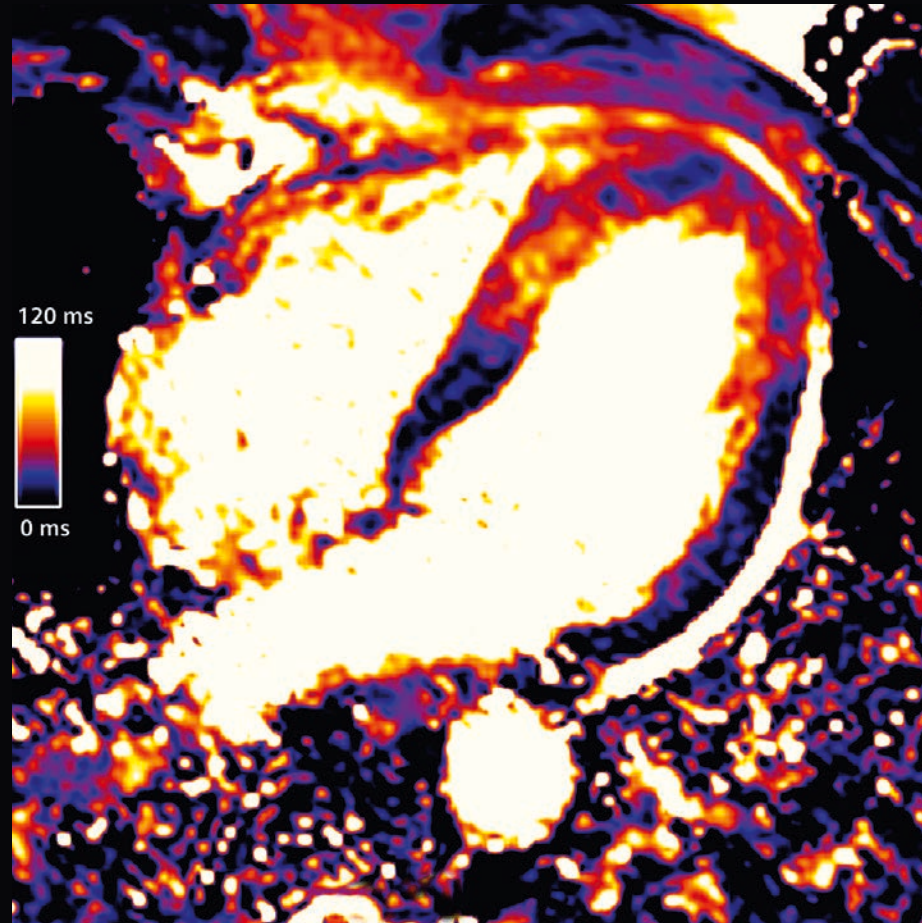
Courtesy of Erasmus Medical Center, Rotterdam, The Netherlands

MyoMaps at 1.5 Tesla and 3 Tesla

Siemens
only

- MyoMaps offers colored parametric maps for pixel based evaluation of myocardial tissue characteristics which provide additional quantitative information about tissue composition in the heart
- By quantifying tissue characteristics, MyoMaps can help to identify subtle changes, e.g. amyloidosis or iron overload
- Fully system guided, robust and efficient inline calculation of T1, T2 and T2* maps
- Based on Siemens-unique HeartFreeze Inline Motion Correction

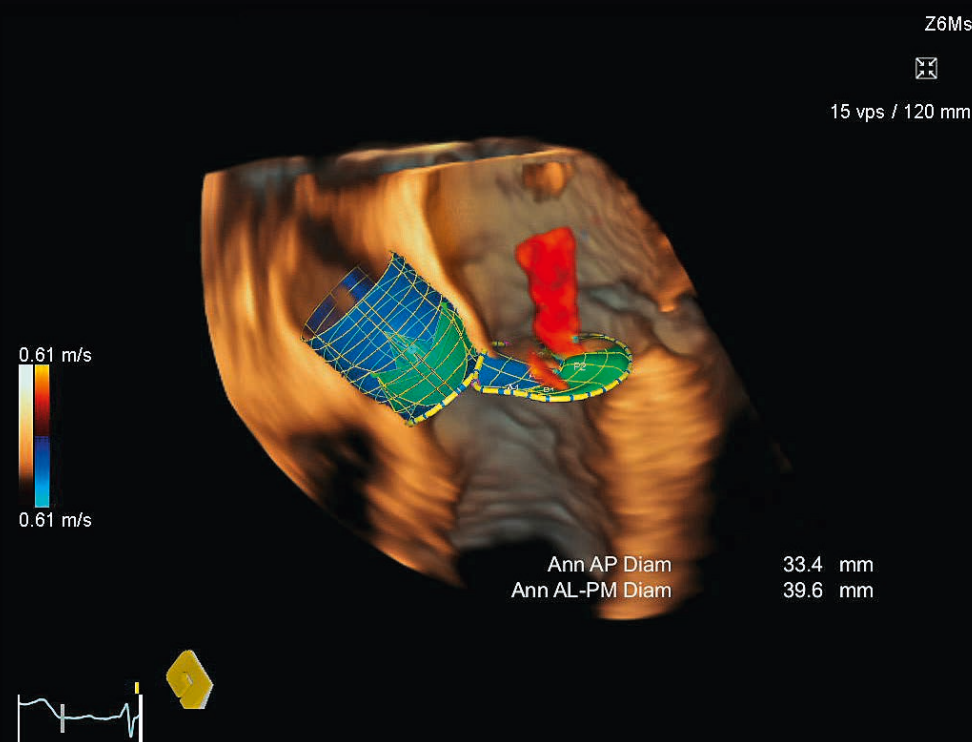
Guide cardiovascular therapy, starting earlier and more efficiently.



Myocardial edema with MyoMaps; T2 Map values (ms) > 65ms indicative of pathology (edema)

Courtesy of Helios Klinik Berlin-Buch, Germany

Precision at the speed of life



Both aortic and mitral valve modeled and visualized simultaneously using eSieValves package and True Volume TEE transducer

Courtesy of Yale University, New Haven, USA

Siemens
only

True volume TEE

With innovations in rapid modeling, quantification, and true real-time volume color Doppler, the ACUSON SC2000™ ultrasound system helps you achieve the critical balance between careful analysis and fast decisions.

True Volume TEE Transducer

- Advanced 3D TEE: The new true volume TEE transducer with 90° x 90° real-time imaging provides anatomically precise information
- Real-time volume color Doppler for accurate, continuous, high-volume blood flow visualization, beat by beat
- Fully-shielded transducer tip: Extremely low interference enables high-quality imaging in 2D and 3D at any time
- Innovative thermal management design helps achieve uninterrupted imaging, higher sensitivity and higher volume rates

eSie Valves™ advanced analysis package

- Award winning automated valve modeling for a comprehensive understanding of mitral and aortic anatomy within seconds

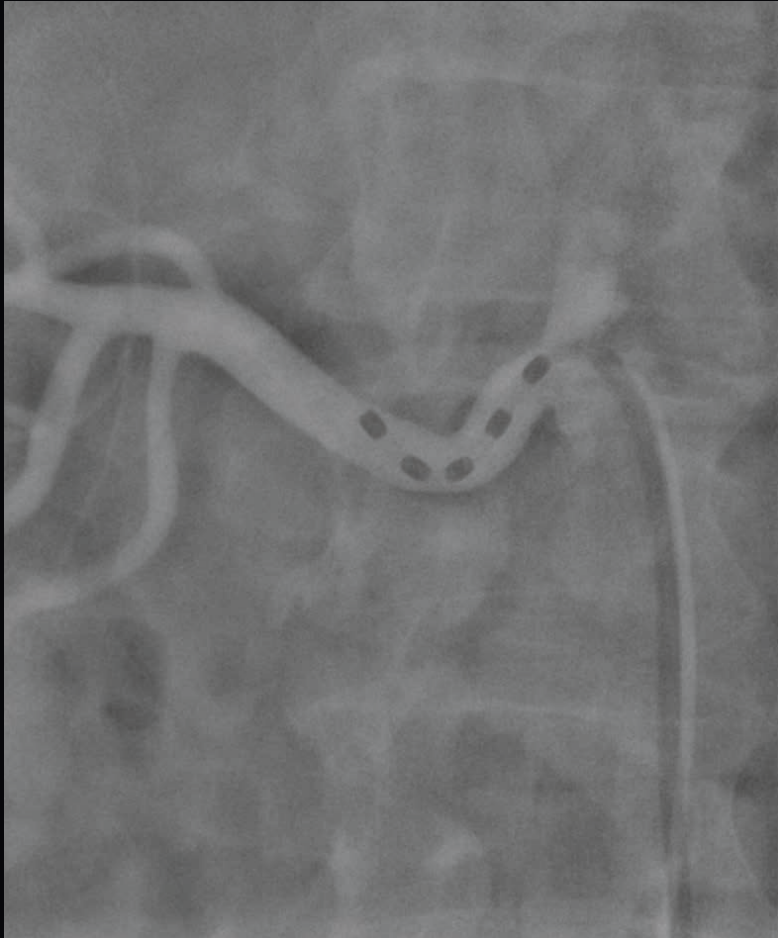
Tools for Peripheral Vessel Disease and Vascular Procedures

More and more interventional cardiologists are broadening their spectrum beyond the heart to peripheral or renal arteries, carotids, and even intra-cranial vessels.

A mix of various procedures requires a wide range of physician skills and versatile tools to optimize clinical results. Discover Siemens' broad portfolio for peripheral vessel disease and vascular procedures.



Easily see treatment location



Overlay of the renal artery during a renal denervation

Courtesy of University Hospital Erlangen, Germany

Overlay Reference

- Save dose and contrast agent by overlaying existing images to guide your intervention
- See the vessel map in relation to anatomical landmarks and save additional contrast injections to verify catheter positioning
- Fade the overlay image in and out according to personal preference

Digital Subtraction Angiography (DSA) and Roadmap

- Outstanding image quality with 2k resolution
- Image background removal to visualize even the finest vessels
- Choose advanced roadmap from dedicated DSA mask or from previous scenes
- Next generation real-time pixel shift CLEARmatch for movement compensation
- Dedicated low-dose DSA protocols saving up to 67% of the dose compared to standard DSA acquisitions*



*Nickoloff et al., Cardiovasc Intervent Radiol (2007) 30:168-176

2D advanced roadmap



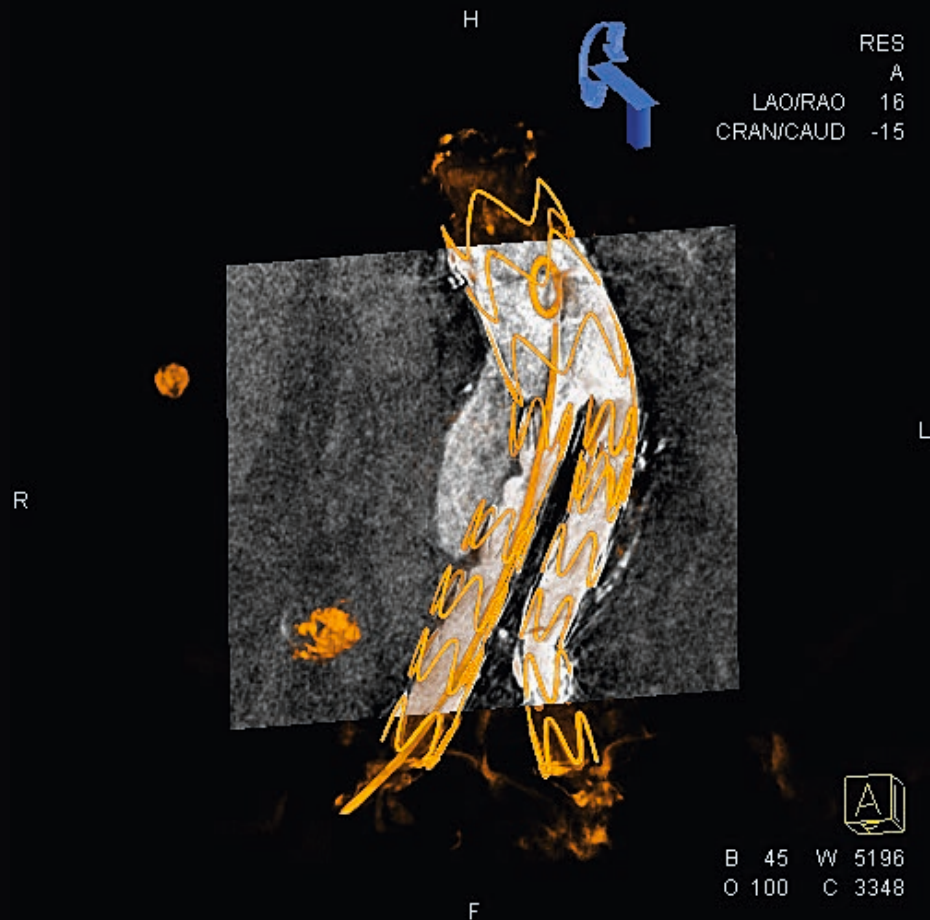
Clear DSA image of an AAA

Courtesy of Klinikum Ludwigsburg, Germany

Soft-tissue imaging in the cath lab

syngo DynaCT and syngo Toolbox

- Provides current three-dimensional soft-tissue information directly in the cath lab for planning and final check after procedure
- *syngo* DynaCT can be used to image anatomical structures like the aorta for AAA treatment
- *syngo* Toolbox can be used to overlay 3D volume outlines onto live 2D images
- Post-intervention assessment of procedural success and possible further adjustments



3D view of an AAA after stent graft implantation

Courtesy of MH Hannover, Germany

Artis family of imaging solutions

Versatile systems for all types of interventional cardiology

The Artis family includes four product lines of interventional imaging systems: Artis one, Artis zee, Artis Q, and Artis Q.zen. They feature the complete portfolio for cardiology, including a floor-, ceiling-mounted, or biplane system and even a highly flexible multi-axis system with robotic technology: Artis zeego.

The versatile portfolio from Siemens offers the right solution for virtually all needs in interventional cardiology keeping in mind the essentials, such as flexible working position and high level of control from the sterile area.






















Artis one

Artis zee

Artis Q

Artis Q.zen

Artis with
PURE®

Floor-mounted	Ceiling-mounted	Biplane	zeego*	Multi-Purpose*	Detectors	X-ray Tube
					 midsize detector	MEGALIX Cat Plus
					 small detector  large detector	MEGALIX
					 small detector  large detector (HDR)	GIGALIX
					 midsize detector (crystalline silicon)	

*Only available with large detector.

Interventional cardiology

Interventional radiology

Surgery

Artis Large Display

See the whole picture on one monitor

Seeing more can increase diagnostic and therapeutic confidence. Our Artis Large Display features a full-color 55/60-inch medical-grade screen that lets you view multiple inputs simultaneously. You can choose between more than 200 layout configurations. In addition, you can select up to 12 different screen combinations with input from up to 24 image sources directly at the tableside. And you can zoom the image of clinical focus up to twice the size of a standard display.

- High definition consolidated display
- Customized views
- Optimal resolution in any window size
- Fast, intuitive handling, tableside control
- Integrated emergency backup

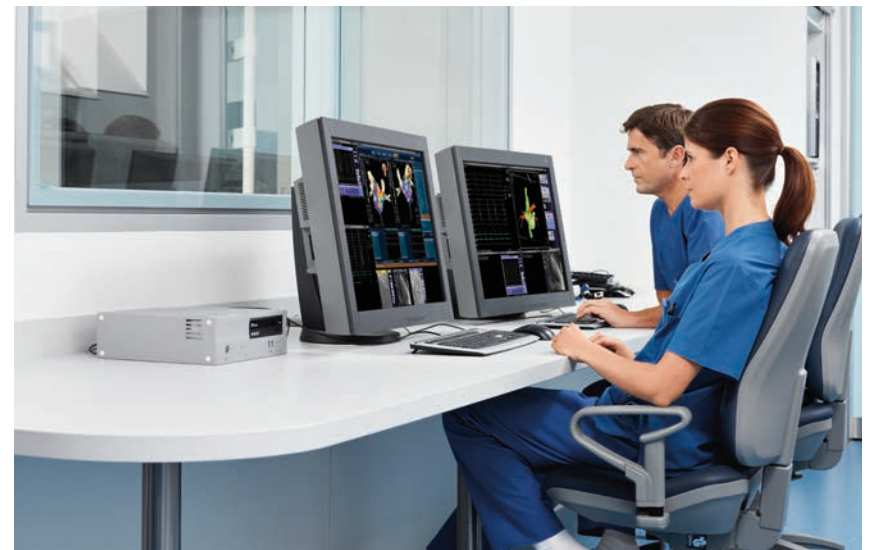


Artis Cockpit

Clean up the control room

Stop running from one system to the next – let the Artis Cockpit consolidate all your information in one workplace. The 30-inch medical-grade monitor offers 4-megapixel resolution and high brightness for excellent image display. Up to nine inputs can be simultaneously displayed and controlled, with a choice of four different layouts. Artis Cockpit offers one single workplace that can be equipped with one or two keyboards and monitors. With so much more efficiency in the control room, you can focus on your procedure and your patient.

- Streamlined setup and workflow
- Control up to nine systems from one workplace and clean up your control room
- Configure the Artis Cockpit to your needs with one or two keyboards and monitors
- Customize layout quickly with drag & drop



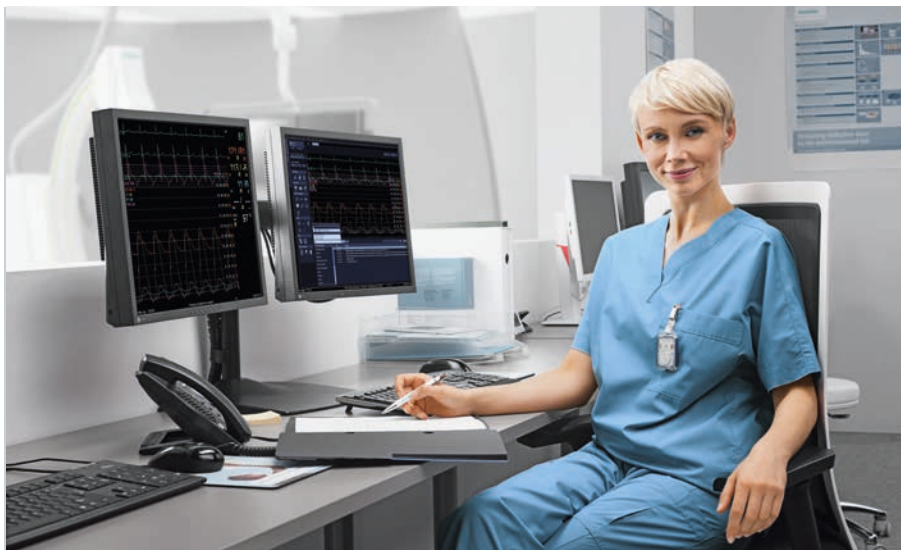
Sensis Vibe

Amplify productivity with our latest recording and documentation system

Sensis Vibe is the vital core where all events, decisions, measurements, and data from your procedures are captured. It reduces administrative effort and standardizes documentation and reporting across interventional entities. Sensis Vibe intuitively blends into the rhythm of the interventional floor and tunes up your workflow efficiency.

Highlights of Sensis Vibe:

- The FlashDoc functionality can save time spent on capturing data. Auto completion facilitates text entry and allows assisting staff members to remain focused on the patient while completing necessary administrative steps.
- With clinical decision support tools like SAI or FFR, Sensis Vibe shortens time needed for diagnosis and speeds up treatment decisions. By documenting treatment necessity indicators it secures reimbursement.
- By using standard interface languages, Sensis Vibe reliably communicates different kinds of data to various hospital IT systems. This applies to information captured during a procedure as well as to pre- and postinterventional data.
- Sensis Vibe protects your cash flow by providing complete and accurate procedure data for billing.





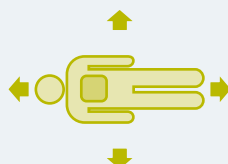


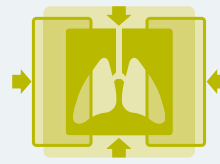
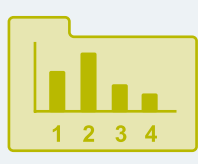

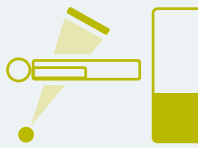

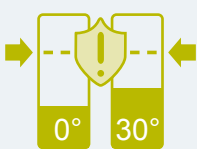
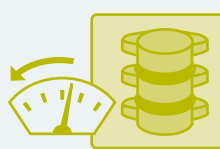

CARE+CLEAR

CARE+CLEAR is our comprehensive portfolio of image-quality and dose-saving tools. It provides our customers with their preferred image quality at the lowest possible dose, supporting confident decisions in diagnosis and treatment as well as increasing the safety of both patients and clinical staff.

CARE+CLEAR is standard with all Artis systems.

CARE features

Siemens has always been a pioneer in reducing radiation dose for patients and staff. The philosophy behind our Combined Applications to Reduce Exposure (CARE) is simple: They are designed to help you deliver better care at the lowest reasonable dose.


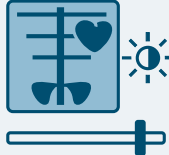







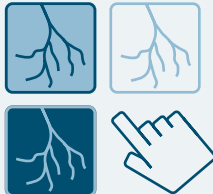
<h3>CARE features</h3> <p>Siemens has always been a pioneer in reducing radiation dose for patients and staff. The philosophy behind our Combined Applications to Reduce Exposure (CARE) is simple: They are designed to help you deliver better care at the lowest reasonable dose.</p>		<h4>CAREposition</h4> <div></div> <p>Patient positioning without additional fluoroscopy while moving the table or C-arm</p>		<h4>CAREvision</h4> <div></div> <p>Dose reduction by adapting the pulses per second</p>	
<h4>CAREfilter</h4> <div><p>Minimized patient entrance dose* with nearly no impact on image quality</p></div>		<h4>CAREprofile</h4> <div><p>Radiation-free adjustment of collimation and semitransparent filter</p></div>		<h4>CAREreport</h4> <div><p>Comprehensive reporting for easier dose management</p></div>	
<h4>Low-dose acquisition</h4> <div></div> <p>Get the image quality you need, at a much lower dose</p>		<h4>CAREwatch</h4> <div></div> <p>Making dose visible</p>		<h4>CAREguard</h4> <div></div> <p>Effective patient entrance dose* control during procedures</p>	
<h4>CAREmonitor</h4> <div><p>Real-time patient entrance dose* monitoring</p></div>		<h4>Low-dose syngo DynaCT</h4> <div><p>3D imaging at the lowest possible dose</p></div>		<h4>CARE Analytics</h4> <div><p>Improved dose monitoring and increased transparency</p></div>	

*Patient entrance dose = Air kerma; Patient entrance dose rate = Air kerma rate

CLEAR features

Whether your patients are tall or short, obese or slender – you need to see. And in order to see, you need optimal image quality.

Our CLEAR applications automatically enhance image quality and thus help increase certainty during interventions.

CLEAR features		CLEARpulse		CLEARcontrol	
<p>Whether your patients are tall or short, obese or slender – you need to see. And in order to see, you need optimal image quality.</p> <p>Our CLEAR applications automatically enhance image quality and thus help increase certainty during interventions.</p>			<p>Improved image quality by shortening the pulse length</p>		<p>Optimized image brightness in areas with high density differences</p>
CLEARmap		CLEARview		CLEARvessel	
 <p>Fast and easy access to enhanced image quality in Roadmap</p>		<p>Dose-adaptive noise reduction to enhance image quality of low-dose images</p>		<p>Enhanced visibility of vessel edges and smooth background</p>	
CLEARmotion		CLEARmatch		CLEARchoice	
	<p>Excellent image quality without motion artifacts</p>		 <p>Compensating for patient movement with next generation real-time pixel shift</p>		<p>Customized image quality</p>

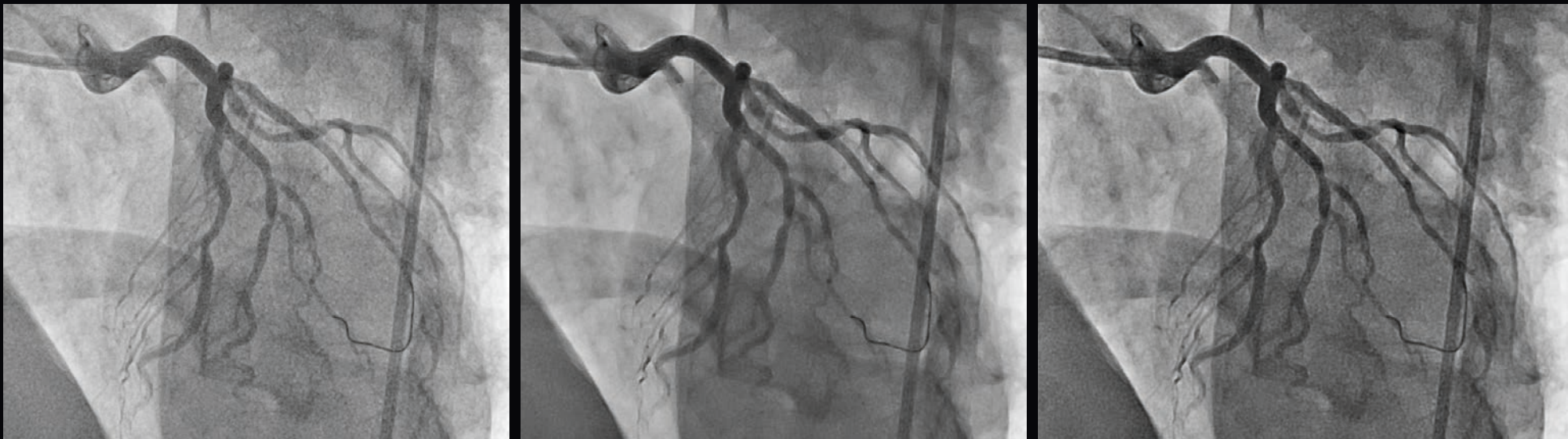
User-specific image quality

CLEARchoice

CLEAR offers a comprehensive range of applications with real-time processing to enhance image quality – without increasing the dose. The combination of automated brightness and contrast optimization, dose-adaptive noise reduction and automated

image enhancement algorithms ensures optimal images, adjusted to your personal preferences with CLEARchoice. This way, the images are always displayed the way you like them best.

User-specific image quality with CLEARchoice



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