SOMATOM X.cite
with myExam Companion

Intelligent imaging. Excellence empowered.

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SOMATOM X.cite

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Welcome the era of intelligent imaging

As the number and complexity of radiological procedures increases, demands on staff are reaching unsustainable levels – impacting image quality. Too often, the full potential of CT scanners remains untapped.

SOMATOM® X.cite changes that. Together with myExam Companion, it launches the era of intelligent imaging. Now users of any skill level can unlock the system's potential. From routine to advanced procedures, SOMATOM X.cite empowers excellence in computed tomography.

Intelligent navigation for enhanced consistency

Reliable and reproducible results with myExam Companion
myExam Companion is a new approach to scanner operation, designed to make work easier for users, personalize procedures for patients, and deliver consistent and comprehensive results for radiologists. It guides users of all experience levels through routine examinations as well as more complex procedures like stroke, spectral studies, or coronary CTA – for example, by asking the right question at the right time such as **"Did the patient drink coffee in the last 4 hours?"**, **"Does the patient have stents?"**, or **"Are automatic reconstructions of the coronaries needed?"** The answers are linked to predefined scan parameters.
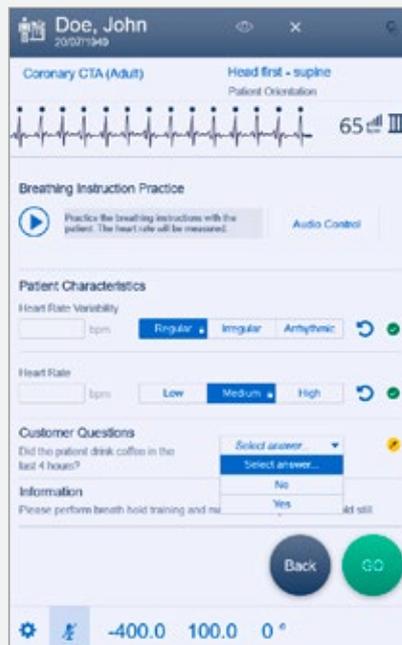
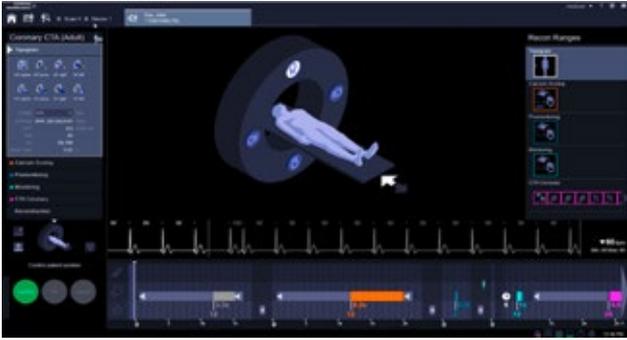**FAST 3D Camera**
Accurate and reproducible patient positioning

myExam Compass
Automated scan mode based on ECG characterization

High heart rate
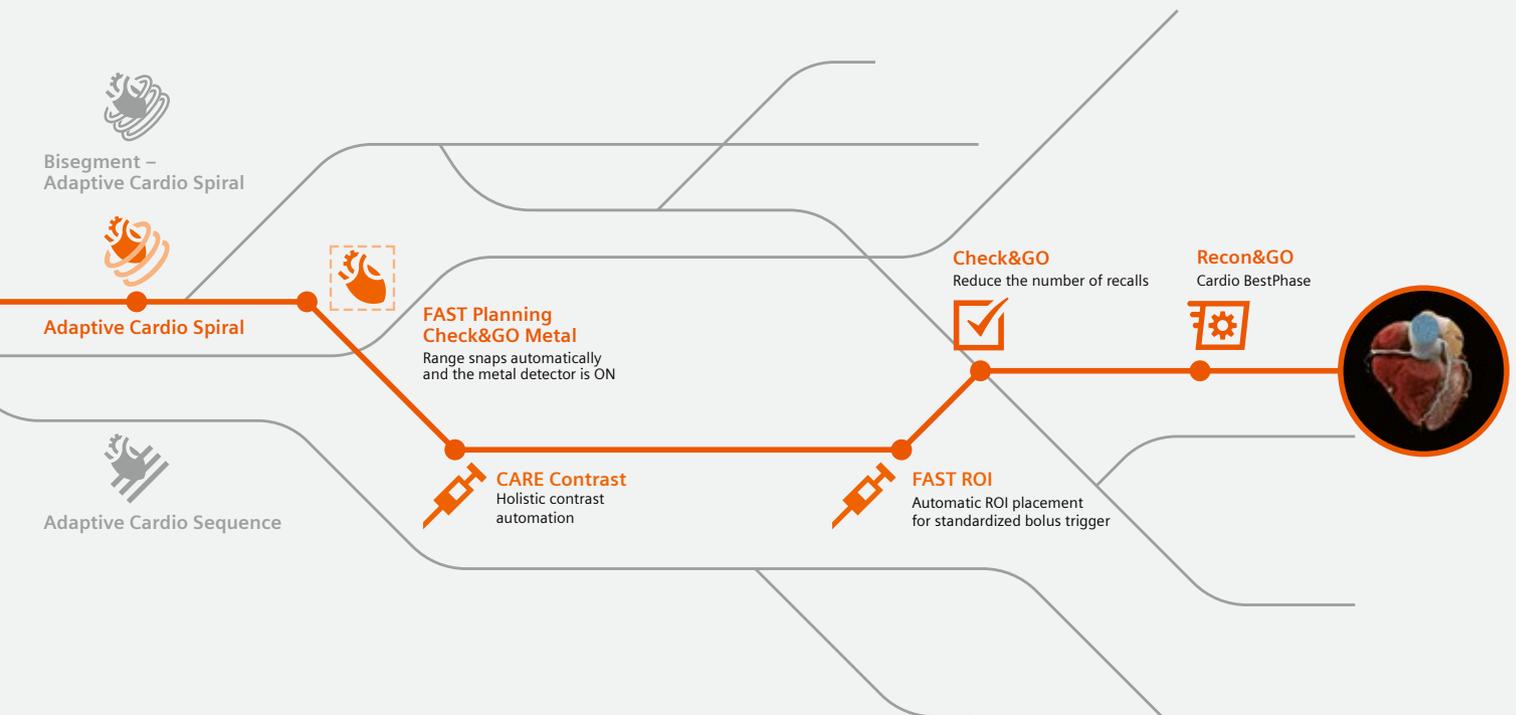
Mid heart rate

Low heart rate

GO technologies powered by myExam Companion
Check&GO identifies potential errors in organ coverage, contrast media volume and distribution, and the presence of wearable metal objects (e.g., belts, necklaces) – helping users take immediate action or make corrections. By automating many postprocessing tasks, Recon&GO reduces the number of workflow steps: the results are automatically sent to PACS, including labeled CPR for the main vessels, ribs, and spine.

AI-Rad Companion: The assistant powered by AI
AI-Rad Companion is our family of vendor-neutral, multi-organ augmented reading solutions. They take over basic, repetitive tasks to support experienced staff in working at the top of their license. AI-Rad Companion reading solutions automatically prepare the clinical input: they identify and quantify relevant anatomies and abnormalities and put findings into a diagnostic context.

Bisegment –
Adaptive Cardio Spiral

Adaptive Cardio Spiral

Adaptive Cardio Sequence

FAST Planning
Check&GO Metal
Range snaps automatically
and the metal detector is ON

CARE Contrast
Holistic contrast
automation

FAST ROI
Automatic ROI placement
for standardized bolus trigger

Check&GO
Reduce the number of recalls

Recon&GO
Cardio BestPhase

Personalized imaging for consistent, comprehensive results

SOMATOM X.cite generates the comprehensive information that can help radiologists diagnose with precision and confidence – no matter the patient or procedure. The power stems from its outstanding imaging chain, which includes the Vectron® X-ray tube. The user guidance comes from myExam Companion, which tailors acquisition to the individual patient.

Challenging cases

Vast power reserves, outstanding spatial resolution, and low contrast differentiation mean excellent image quality and optimized dose for challenging cases.
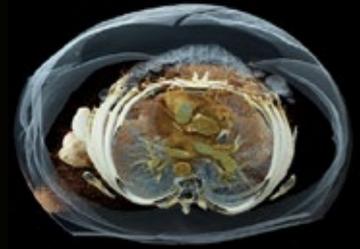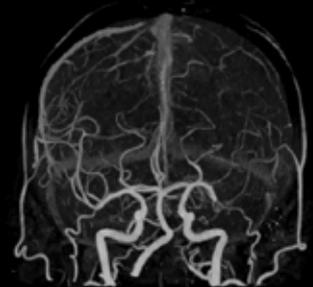

Cardiac imaging

Easy user guidance to get the optimal combination of acquisition and reconstruction parameters – and ready-to-read results for instant evaluation.
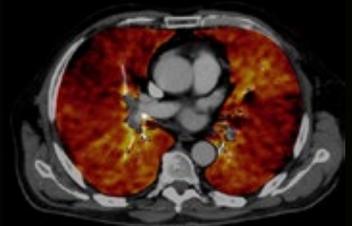

Neuro imaging

Flexible adaption of the scan range, high power reserves for low-kV imaging, and dedicated noise reduction keep dose as low as reasonably achievable.

Spectral imaging

Improved spectral separation without dose penalty and automatic adaption of protocol settings for Dual Energy spectral imaging results at any orientation and thickness.
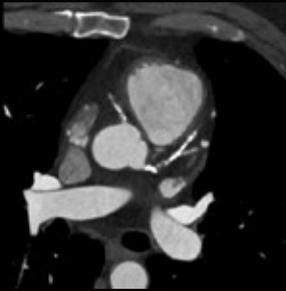
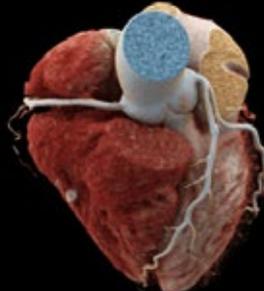Lung evaluation with Tin Filter for low dose, even for obese patients.

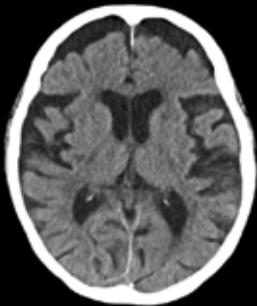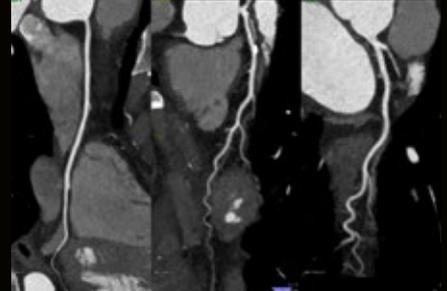Low-kV imaging with high power reserves.

Inner ear assessment with Tin Filter. High spatial resolution with no dose penalty.

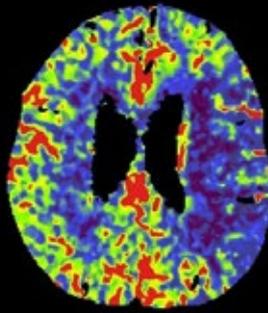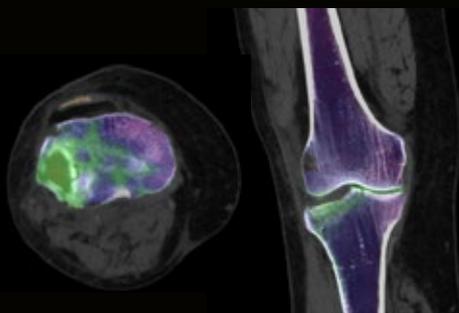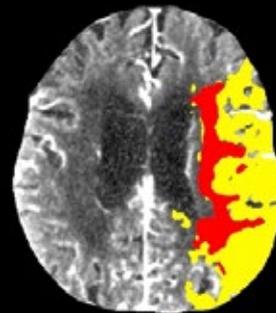Excellent visualization of bypass and coronaries.
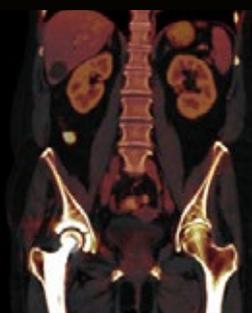

Low-dose coronary CTA at 6 mGy with 70 kV.

Unenhanced head scan for stroke assessment, $CTDI_{vol}$ of 41.39 mGy.

Stroke assessment with Brain Perfusion acquired with Flex 4D Spiral at 70 kV.

TwinSpiral Dual Energy for assessment of bone marrow in the knee.

Fused iodine map acquired with TwinBeam Dual Energy for assessment of contrast enhancement.

Patient-friendly design with an 82 cm bore

SOMATOM X.cite is designed to transform how patients interact with both user and the CT scanner – and how they perceive their care.

The large 82 cm bore is ...
- Ideal for obese patients and trauma, orthopedic, or interventional procedures
- Ideal to help both patients and users relax

The FAST 3D Camera[1] helps set the ...
- Right dose modulation with FAST Isocenter
- Correct body region with FAST Range
- Right scan direction with FAST Direction

The tablet enables ...
- Staying close to the patient at all times by:
  - Preparing all scans right at the gantry
  - Returning to the patient right after the scan
  - Previewing images directly on the tablet
- Simultaneous use of up to five tablets[1]
- Placement and charging of the tablets at the docking station[1] on the gantry or at your workplace

The remote control helps ...
- Simplify patient positioning
- Start the scan remotely, complementing the tablet for a true mobile workflow

The gantry-integrated Patient Observation Camera[1] helps ...
- Monitor the patient even inside the gantry
- Keep an eye on the patient and spot even small movements

The gantry-integrated Visual Patient Instruction[1] offers ...
- Improved compliance with breathing commands to potentially reduce movement artifacts
- Intuitive color-coded breath-hold countdown, displayed on the front and back of the tunnel
- Visual guidance, especially helpful for the hearing-impaired or patients who don't understand the local language

The gantry-mounted injector arm[1] allows ...
- The injector to be positioned where you need it, when you need it
- The injector to be flexibly moved into other positions
- Work in a neat and patient-centered environment without a blocking injector cart

Technical specifications

Detector:	Stellar^{Infinity} detectors
X-ray tube:	Vectron® X-ray tube
Number of acquired slices:	128 slices
Rotation time:	up to 0.3 s[1]
Temporal resolution:	up to 150 ms[1]
Generator power:	105 kW
kV settings:	70 – 150 kV @ 10 kV Steps
Spatial resolution:	0.3 mm
Max. scan speed:	218 mm/s
Table load:	up to 307 kg/676 lbs[1]
Gantry opening:	82 cm

Technology overview

Vectron® X-ray tube
Delivers excellent low-kV properties and a small focal spot
for high resolution:
- 1,200 mA @ 70, 80, 90 kV
- 0.6 × 0.7 (IEC) focal spot
- 70 – 150 kV in steps of 10 kV

Stellar^Infinity detector
Reduces image noise in every scan. Increased channel density and new
geometry result in homogenous image quality, even in complex areas:
- TrueSignal technology with full electronic integration
- Edge technology enables the generation of 0.5 mm slices

Tin Filter
Cuts out lower energies to reduce dose and enhance image quality:
- Low-dose early detection in lung, colon, or calcium score exams
- Dose level comparable to that of a conventional X-ray system
- Tin-filtered topogram

TwinBeam Dual Energy[1]
Acquires low- and high-kV datasets in a single scan:
- Rich diagnostic information that a conventional single source CT scan
  can't deliver
- Users can characterize, highlight, and quantify different materials for
  greater diagnostic confidence with virtually all patients

TwinSpiral Dual Energy[1]
Provides both morphological and functional information in non-contrast exams:
- Datasets at two different energies
- Improved spectral separation with no dose penalty thanks to tin filtration
  of the high-kV scan
- New workflow concept of two scans integrated into a single acquisition

Flex 4D Spiral[1]
Provides optimized dynamic acquisitions with continuously repeated
bidirectional table movement during spiral acquisition:
- Extended range for 4D information
- Perfusion range of up to 10 cm[2] in head applications, up to 20 cm[2] in body
  applications, and dynamic CTA studies up to a scan range of 44 cm[2]

SOMATOM X.cite with myExam Companion is not commercially available in all countries. Its future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for more details.

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Clinical images from left to right, page 4-5, courtesy of:

Challenging cases
University Hospital Erlangen, Erlangen, Germany
Clinica Universidad de Navarra, Pamplona, Spain
Clinica Universidad de Navarra, Pamplona, Spain
University Hospital Zurich, Zurich, Switzerland

Cardiac imaging
University Hospital Erlangen, Erlangen, Germany
University Hospital Erlangen, Erlangen, Germany
Clinica Universidad de Navarra, Pamplona, Spain
Clinica Universidad de Navarra, Pamplona, Spain

Neuro imaging
University Hospital Zurich, Zurich, Switzerland
University Hospital Zurich, Zurich, Switzerland
University Hospital Erlangen, Erlangen, Germany
University Hospital Erlangen, Erlangen, Germany

Spectral imaging
Clinica Universidad de Navarra, Pamplona, Spain
University Hospital Erlangen, Erlangen, Germany
University Hospital Erlangen, Erlangen, Germany
Klinikum Nuremberg, Nuremberg, Germany
Klinikum Nuremberg, Nuremberg, Germany

1) Optional
2) Neuro: 9.79 cm, Body: 19.58 cm, Body CTA: 43.78 cm

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