



Revolution™ HD

Confidence with Superb Image Quality

Revolution HD helps you deliver confidence with superb image quality in every study, clinical flexibility, faster exams, and the right dose for every patient - complete capability with complete confidence.

High definition imaging

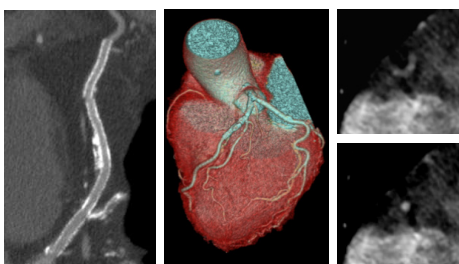
Improved spatial resolution, when you need it

- MSK: improved trabecular bone and fracture visualization
- Cardiac: reduced blooming of calcium and stents
- Vascular: improved visualization of stenosis and calcium blooming reduction
- Temporal bone: mastoid air cells, malleus, incus and stapes

Fast and repeatable cardiac imaging

Five-beat high definition coronary imaging delivers:

- Reduced calcium blooming
- Improved stent visualization
- Improved diagnostic confidence
- Less than 1 mSv CCTA as demonstrated below
- Freeze cardiac motion with SnapShot™ Freeze as demonstrated below



0.31 msv¹

Reliable perfusion imaging

- Wide coverage when you need it
- Deliver up to 24% less dose² while increasing brain coverage to 8 cm with VolumeShuttle.
- Gain 12 cm of brain coverage with Volume Helical Shuttle
- Enhance body perfusion and dynamic 4D CTA imaging by covering 14 cm and 31.5 cm respectively

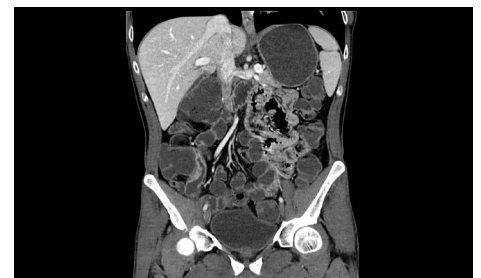
See beyond anatomy with GSI

Expand beyond classical anatomical assessment to quantitative tissue characterization and advanced functional imaging with the use of monochromatic and material density images. Some of the many clinical applications include:

- Lesion characterization
- Metal artifact reduction
- Kidney stone characterization with quantitative information to help determine composition of stone
- Virtual non-contrast from a contrast enhanced study
- PE exam with low keV imaging for improved detection
- Suppress calcium from vascular structures, including cardiac
- Improved myocardial perfusion with beam hardening reduction

Low-dose general Imaging

- Only CT manufacturer approved for a low-dose lung screening option
- Gain diagnostic confidence and clinical flexibility with the right dose for all exams utilizing ASiR³
- Image the chest as fast as 1.5 seconds
- Image the chest/abdomen/pelvis as fast as 4 seconds
- Smart Technology low-dose tools and protocols for all ages
- Image under 1 mSv with profound clarity with exclusive Veo™



0.04 msv¹

Gemstone™ detector

- 40 mm coverage Gemstone detector
- Best-in-class 0.23 mm spatial resolution
- 0.35 s rotation
- 100 kW generator
 - 10-835 mA – 5mA increments
 - Up to 570 small focal spot at 120 kV
 - 80, 100, 120, 140 kV
- Gemstone Spectral Imaging (GSI)
- 64-channel Volara DAS with 128-slice single energy reconstruction and 256-slice reconstruction with GSI
- Exclusive Veo™ imaging under 1 mSv with profound clarity
- Exclusive SnapShot Freeze technology – 29 ms effective⁴ temporal resolution
- Exclusive Gemstone scintillator material
- Scintillator speed – 0.03 μs (100x faster than GOS)
- Afterglow – 0.001% (4x lower than GOS)
- Radiation damage: 0.03% (20x less than GOS)
- Detection efficiency: 98% @ 120 kVp
- 2,496 views at the fastest rotation speed for improved spatial resolution

Table / Gantry

- High capacity 500 lbs and 675 lbs table options
- 1700 mm and 2000 mm scannable range options
- 70 cm gantry opening with +/- 30° tilt
- Front/back gantry controls plus in-room start
- Patient breathing lights and hold breath timer

Smart flow technologies

- Up to 55 images per second recon with Image Check
- Dynamic Transition helps improve contrast timing
- One Step Patient positioning: Just step on the up pedal to preload the patient to the reference position
- One-step ED mode with 9 of your favorite protocols
- Videos to help explain the CT procedure to all patients and distract pediatric patients
- Exam split: Split exams to be read in separate anatomic sections
- Patient name on gantry for improved patient satisfaction
- Volume viewer on OC

Make low dose routine

- ASiR iterative reconstruction technology is proven in more than 60 million studies world wide. Dial down the dose without compromising diagnostic detail while improving low contrast detectability and artifact suppression
- Upgrade your dose reduction with GE exclusive Veo technology, true model-based iterative reconstruction. Veo provides profound image clarity, improved spatial resolution, and low contrast detectability at previously unthinkable doses of under 1 mSv for all applications
- Only CT manufacturer with a low-dose lung screening indication option

Smart dose technologies

- ASiR and Veo
- Innovative organ dose modulation
- SnapShot Assist
- GSI assist
- 3D dose modulation with Smart mA
- kV Assist with 80, 100, 120, 140 kV options
- Dose reporting displayed on the console during scan prescription
- Dose Check
- CT 4Kids for optimized pediatric protocols
- Compliant with NEMA XR 29-2013

Upgradeable to meet your needs

- Scalable platform to configure a system to your specific clinical needs
- Always have the option to upgrade to advanced Revolution HD features with minimal downtime and without the need to replace the entire system

Accreditation and training programs

- On-site training with TVA hours
- Full-service headquarters classes
- Two-day ACR accreditation readiness Program

GE advanced service delivery program

- On Watch proactive remote monitoring your system to ensure it is operating within specifications
- InSite* Support – Diagnose issues remotely
- Quarterly performance review with local GE team

1. Obtained by ICRP using a chest factor of 0.014DLP, ICRP Publication 102, March 2007

2. Dose reduction was measured by comparing a conventional cine scan (cine, full, 40 mm coverage, 5 mm slice thickness, 1.0 sec gantry rotation, 80 kV, 200 mA, 45 sec cine duration) versus an axial shuttle scan (VolumeShuttle mode, full, 5 mm slice thickness, 17 passes, 0.4 sec gantry rotation, 80 kV, 500 mA, 46.6s coverage time).

3. In clinical practice, the use of ASiR and Veo may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task. ASiR and Veo may reduce image pixel standard deviation and enable an improvement in LCD. In clinical practice, the actual level of image pixel standard deviation reduction and LCD improvement may vary. Consult with a radiologist and a physicist.

4. Intelligent motion correction with SnapShot Freeze is designed to reduce blurring artifacts due to motion in coronary vessels that cannot be addressed by gantry speed alone. A 6x improvement of motion-blur reduction while maintaining high spatial resolution is demonstrated in cardiac phantom testing. The reduction in motion artifacts is comparable to a 0.058s Equivalent Gantry Rotation Speed with effective temporal resolution of 29 msec, as demonstrated in mathematical phantom testing.