GE Healthcare

Step into the high performance CT

Optima* CT660S

an innovation of

healthymagination

Because you simply want the best for your patients...

It's no secret that hospitals and clinicians today are faced with having to do more with less. Healthcare reform, market uncertainties and changes in the delivery of patient care including the emergence of Accountability Care Organizations are now driving purchasing decisions. Yet the need for affordable quality patient care at low dose is more important than ever.

Using feedback obtained from customers, we've created a CT scanner with a simplified workflow for quick and streamlined operation. Workflow features like ED mode and auto patient positioning, a user-friendly console and synchronized injection enables users to spend more time focused on patient care and comfort.

Simple to Use

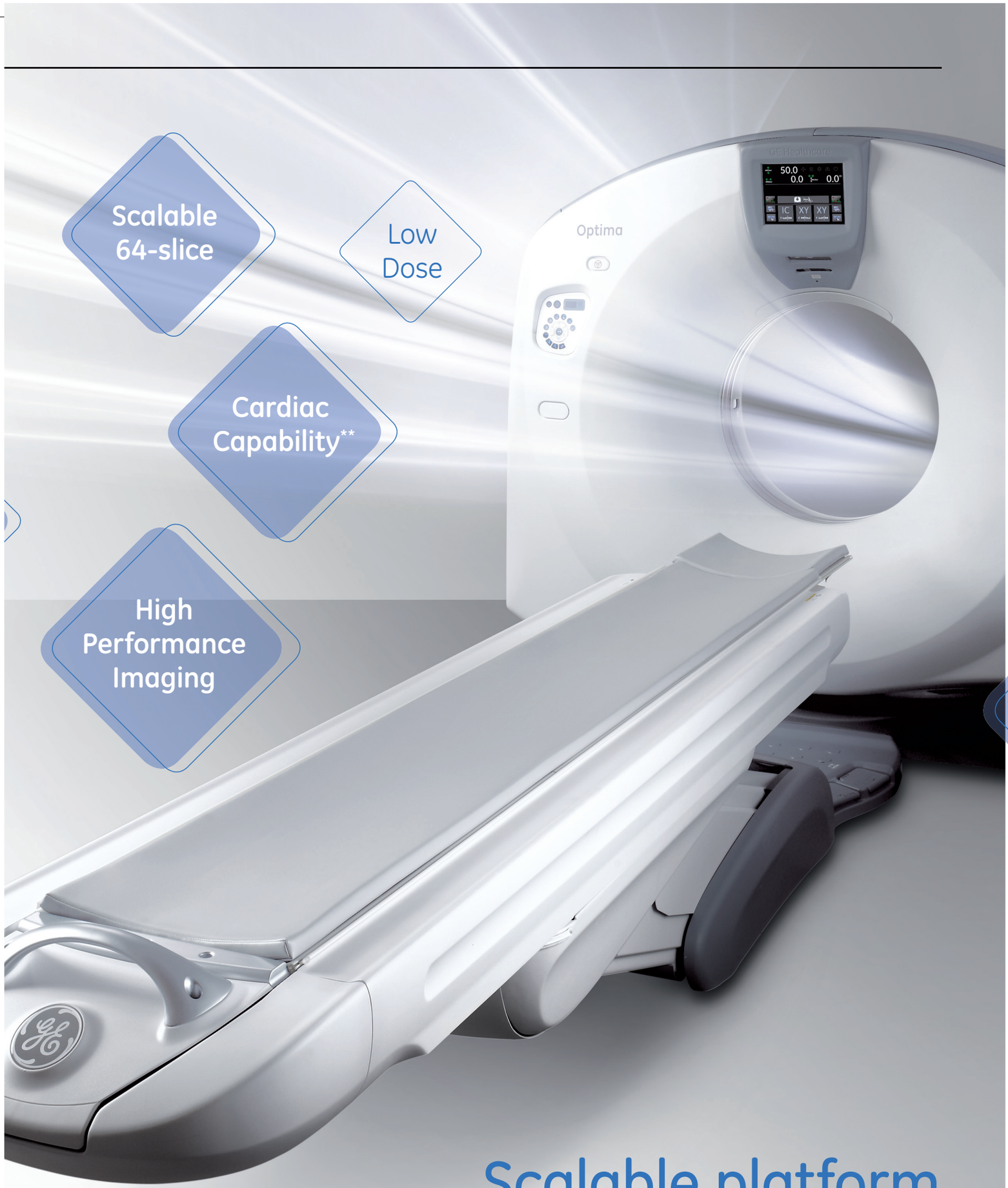
The Optima* CT660S is a new generation, scalable Volume CT scanner that brings together diagnostic power and workflow efficiency, enabling fast, high-quality acquisitions at optimized dose. It helps institutions offer exceptional patient care, financial performance, and operational excellence. Our system solution features advanced capabilities in across applications such as cardiac, oncology, angiography and dynamic imaging.

As providers consider options to manage dose, we created Lower Dose by Design — combining research, training, technology, and clinical practice to achieve high diagnostic image quality at optimized dose. We are committed to helping you deliver the highest quality patient care — with features like ASiR***, ODM, Optidose* and Dose Check.*

The Optima* CT660S also consumes up to 60% less energy than previous GE CT systems and boasts a 15% lower siting requirement compared to other 64-channel detector scanners. Over the life of the product, these features can translate into lower operational costs.

The Optima* CT660S will not only meet your current needs but is also a platform that can meet your future needs. You can pick from a variety of options that works for you today and that will allow you to work within your budget and meet your clinical needs tomorrow.

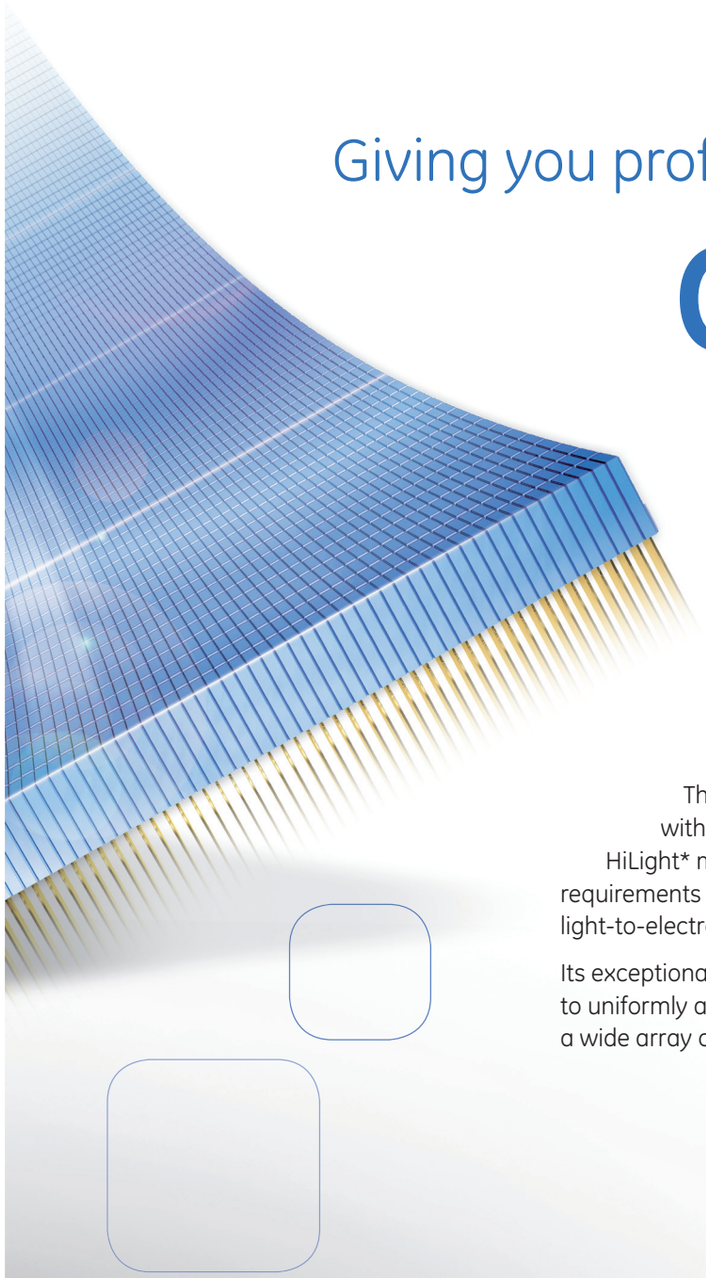
Because you want the best for your patients, we designed for you the Optima* CT660S.



Scalable platform to meet your future needs

Traditionally in CT there has been an undesirable trade-off between image performance and low radiation dose levels. While high image performance often requires greater patient exposure to diagnostic radiation, lower dose levels usually mean lower image clarity due to higher noise and more artifacts.

GE Healthcare has taken the next step toward eliminating this trade-off by developing parallel technologies to see smaller details while decreasing the dose.



Giving you profound image clarity

at low dos

An innovative detector

developed for high spatial and temporal resolutions

The V-Res* detector is optimized for thin-slice, volumetric imaging with high spatial and temporal resolution. Its design and GE's patented HiLight* material composition combine to satisfy the critical-to-quality requirements for primary speed, afterglow, X-ray stopping power, transparency, light-to-electronic signal conversion, z-axis uniformity, and robust performance.

Its exceptional capabilities enable the Optima* CT660S, (scalable to 128-slice) to uniformly and routinely achieve exceptional image performance in a wide array of clinical applications, including cardiac imaging.

ASiR***

ASiR may help clinicians achieve dose reductions of up to 40% while delivering the diagnostic image quality needed for confident diagnosis°. It may also improve low contrast detectability+. ASiR, a projection-based iterative reconstruction technology, changes the dose paradigm across many anatomies and patients. Customers using ASiR have demonstrated excellent diagnostic image quality at low dose across exam types and body regions.

Optidose*

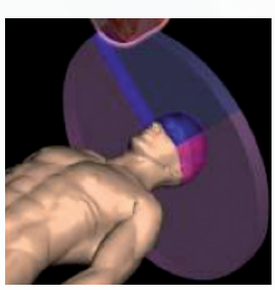
Dose reduction with ASiR is combined with GE Healthcare's proven Optidose technologies that deliver dose reduction at the source. Optidose offers SmartTrack* dynamic collimation that keeps the X-ray beam tightly focused on the active detector cells and Dynamic Z-Axis tracking, which blocks unused X-rays at the beginning and end of a helical scan.

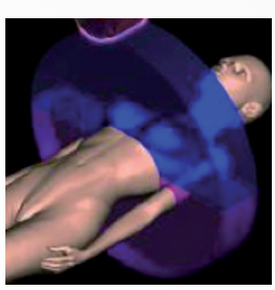
Dose check*

Prior to starting the scan, Dose Check provides tools to notify and alert the operator setting the scan parameters whether the estimated dose index is above user-defined notification values. The Dose Check feature is designed to comply with the NEMA XR-25-2010 standard.

ODM

In addition to the 3D and ECG mA modulation features, the Optima* CT660S introduces Organ Dose Modulation (ODM)—providing reduction of radiation dose via X-ray tube mA modulation for superficial tissues (such as breasts and crystal lenses). Dose reduction at the body surface is up to 40%, while the noise increase of the superficial internal structures is less than 10%.





The Optima* CT660S has been designed to be simple to use, so you can focus less on the buttons and more on your patient.

Designed to be to use with a s workflow

Automated post-processing at your fingertips

The Xtream Display shows basic patient information on the gantry monitor. As such, the user can confirm patient information in the scan room, improving workflow and potentially reducing the opportunity for error. Pre-scanning can be accomplished in as few as five touches. For example, the Optima* CT660S exceptional One stop scanning mode** provides streamlined workflow, shown on the Xtream Display with phrases such as Patient selection, Protocol selection, and Confirm.

Enhanced Table: Scan a whole-body trauma without moving the patient

The VT2000** allows patients, weighing up to 227 kg, to be imaged through a long, scannable range. The Default Patient Positioning provides semi-automatic positioning according to the type of exam, reducing manual positioning and streamlining workflow. The Xtream Display shows pictures that help operators understand the correct exam position.

be simple
streamlined

Optima* CT660S: When seconds count

The Optima* CT660S can help you when scanning potentially difficult patients like uncooperative, children, or intubated patients. It provides information you need in a timely manner to enable confident diagnoses in life-threatening situations. The optimized ergonomics on the scanner improve patient management; and the user can reassure the patient in the scan room while pre-scanning on the gantry display. The patient can be scanned within seconds.

With the Optima* CT660S, the user can scan quickly from the Circle of Willis to the lower limbs, in one pass with diagnostic image quality and images reconstructed in real time. Using real time reconstruction (55 fps)**, the acquired images appear in less than 1 second on the CT console—enabling a quick diagnosis and improving triage and door-to-door treatment times.

Synchronized Injection: Increase the opportunity for successful contrast bolus timing

Xtream Injector** provides a synchronized start of the scan and injection from the CT operator console. Synchronization provides increased opportunity for successful contrast bolus timing and consistency of user-entered parameters—potentially reducing the opportunity for error.

Save time on post-processing

Save time with simultaneous image acquisition, reconstruction, and analysis accelerate workflow. One-Touch protocol allows you to personalize image presentation to individual physician preferences so that advanced processing, volume-rendering attributes, multi-planar reformats, and image sizing are automatically applied as the patient series opens.

Review your images in real time

With a reconstruction time of up to 55 fps, you can confirm acquired images in real time and track up to 1800 mm of scannable length with less than a 1 second delay.

Speed and coverage

For dynamic acquisition studies like pulmonary embolism, thorax, and vascular, as well as for pediatrics and uncooperative patients,it is critical to acquire thin slices at the high table speed in z-direction.

GE helical reconstruction technologies and crossbeam correction work together to enable fast routine scanning of up to 70 cm in 6 seconds while delivering 0.35 mm isotropic spatial resolution. This is accomplished by using IQE to achieve a high helical pitch of 1.531** to reduce the helical artifacts.

Advanced technology for dynamic studies

Optima* CT660S:
For your most critical studies

Cardiac**:

The Optima* CT660S is a new generation Volume CT with a 40mm detector and rotation at 0,35s**. The Optima CT660S provides information to help you with calcium scoring, determining Negative Predictive Values, seeing bypass grafts and addressing Triple RuleOut and chest or abdominal pain. Our advanced suite of applications such as SmartScore Pro**, CardIQ* Xpress 2.0 Reveal** and SnapShot** imaging gives you a comprehensive set of tools for reviewing and analyzing your images.

Perfusion: Twice the coverage with less dose

The Optima* CT660S allows extended coverage of 80 mm with VolumeShuttle***, providing twice the brain coverage for a single bolus of contrast at lower dose. CT Perfusion 4D takes simplicity and intelligence to a new level. Recent application enhancements improved efficiency, consistency, and image performance. CT Perfusion 4D imaging software supports efficient analysis of CT perfusion images obtained by cine imaging. The powerful software quickly generates data that captures perfusion, blood volume, and capillary permeability changes related to stroke and tumor angiogenesis and their treatments.

Angiography: Extended range for dynamic CTA and functional assessment

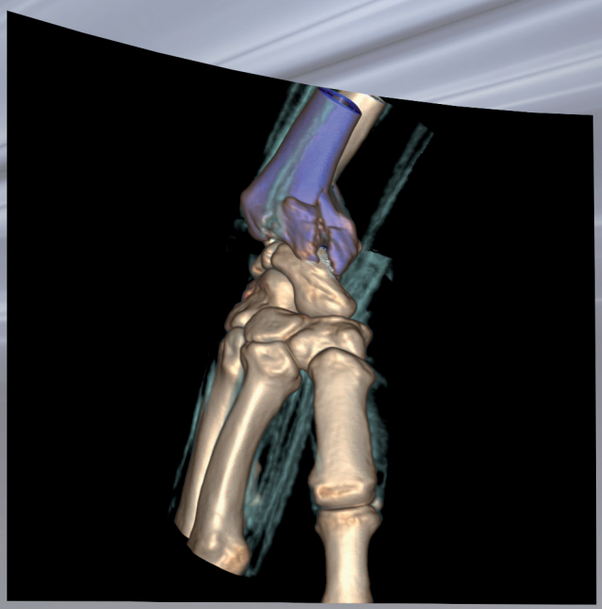
The Optima* CT660S speed and coverage may allow you to capture the arterial phase for assessment of most vascular segments. With Autolaunch and Preprocessing, the system automatically prepares up to eight cases for reading—saving substantial time. In addition, Autobone automatically subtracts bones in angiography studies featuring automatic vessel tracking and thrombus segmentation.

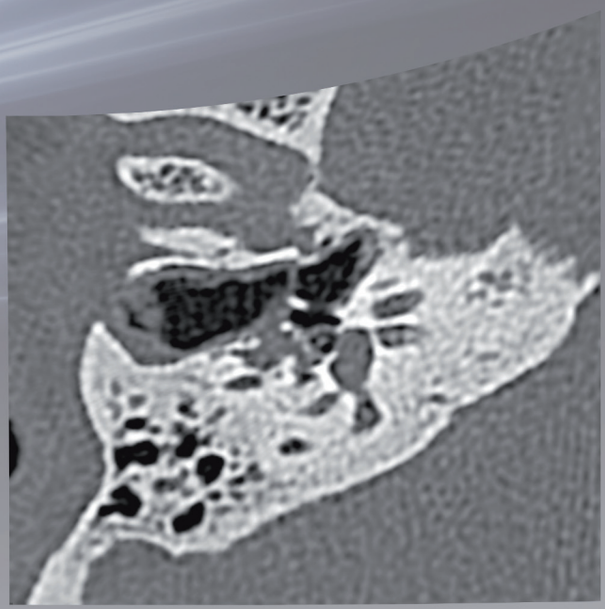
Oncology: Detect, characterize, and quantify lesions

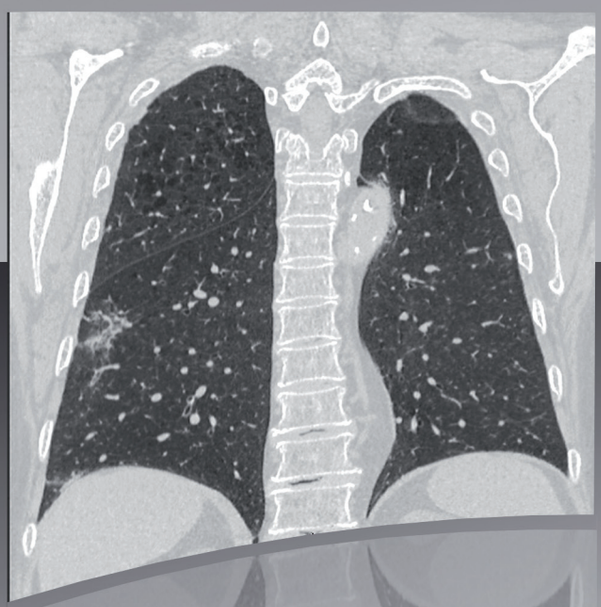
The high power and thin slices of the Optima* CT660S provide extreme clarity of images for detecting very small lesions. GE Healthcare's AW oncology imaging software helps streamline time-consuming and labor-intensive oncology follow-up studies with integrated, optimized reading tools.

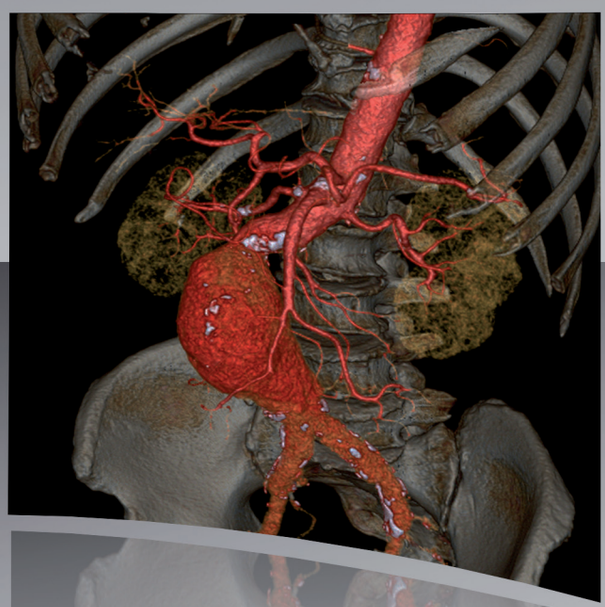
While Lung VCAR offers a complete reading workflow solution with automatic processing and enhanced viewing capabilities, enabling efficient second reviews and easy comparison of follow-up studies, Colon VCAR provides a complete reading workflow solution for the detection of colonic lesions with electronic cleansing. The software allows clinicians to primary-read and problem solve using correlated 2D, 3D, or 360-degree dissection views.

Time-consuming and labor-intensive, oncology follow-up studies represent over 70% of routine reviews. OncoQuant imaging software streamlines this process so you can spend less time retrieving studies and preparing exams, and more time reading and reviewing. A true cross-modality oncology reading platform, OncoQuant helps you correlate and compare CT, MR, PET/CT, and 3D X-ray data. It automates workflow from your PACS—facilitating easy comparisons over time and efficient follow-up exams.

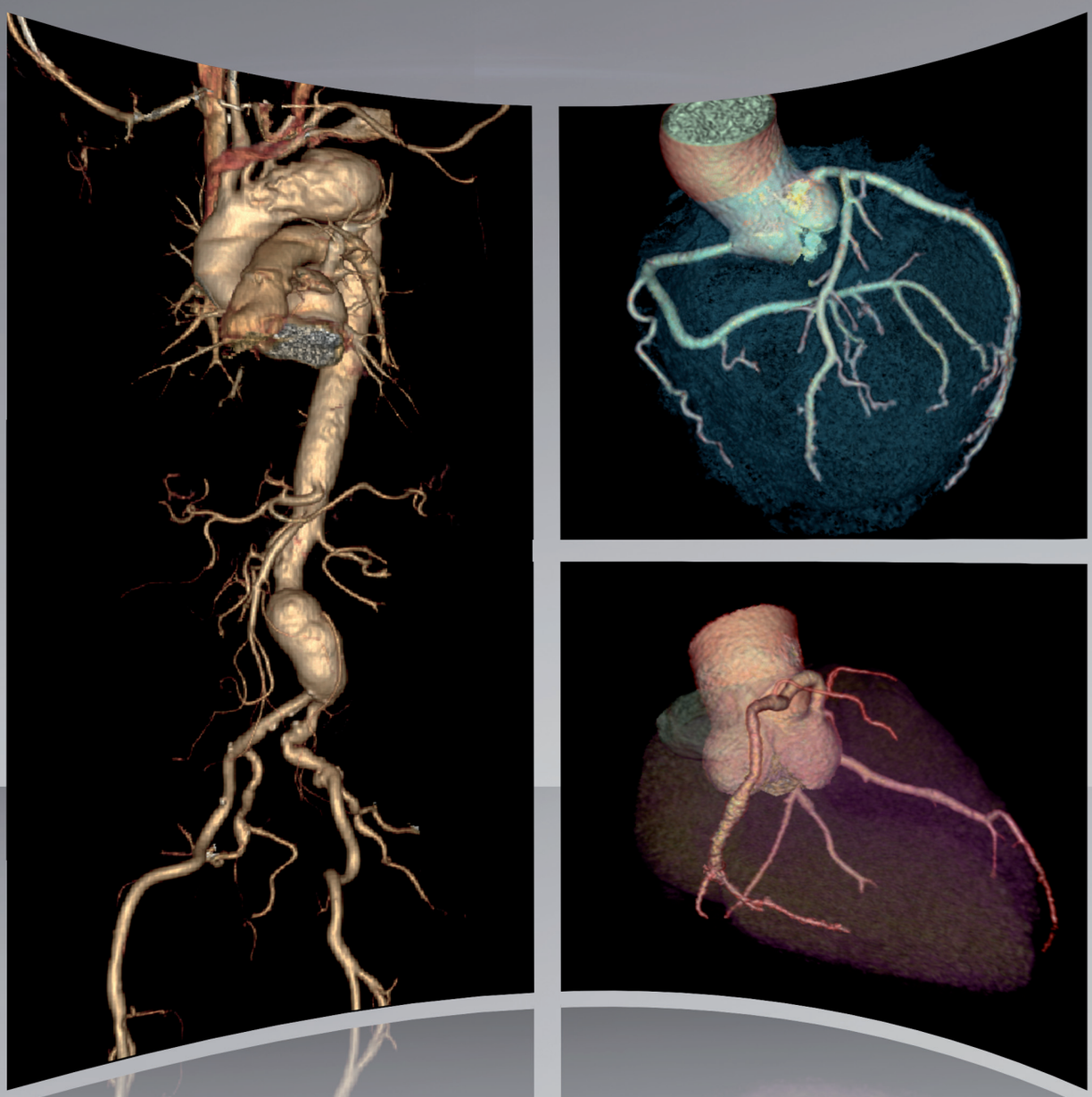




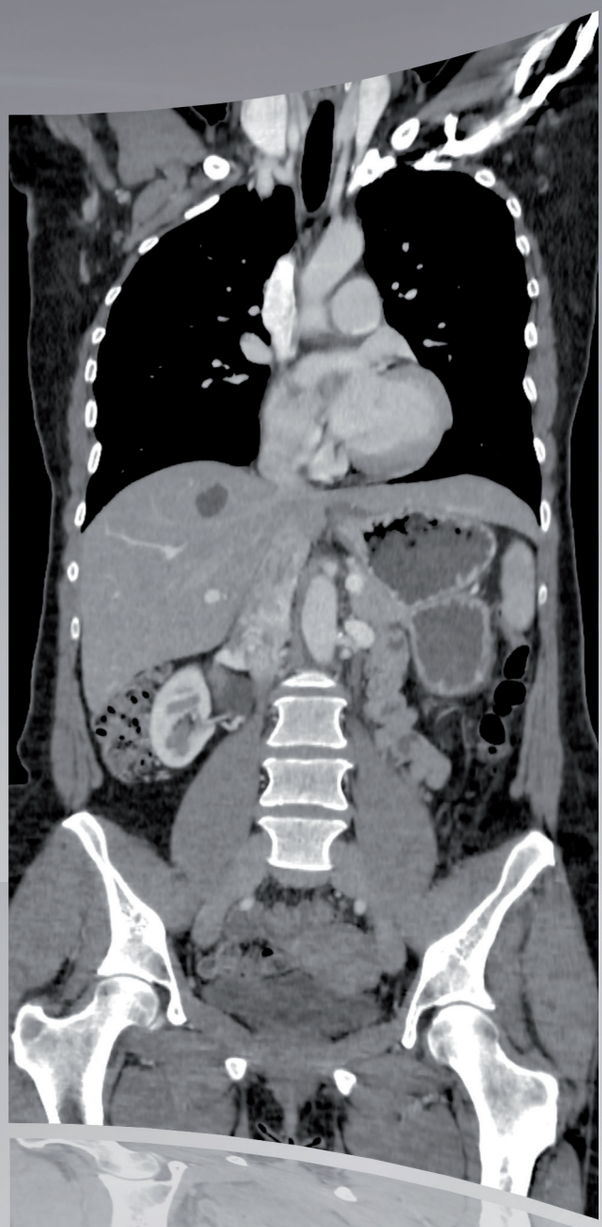




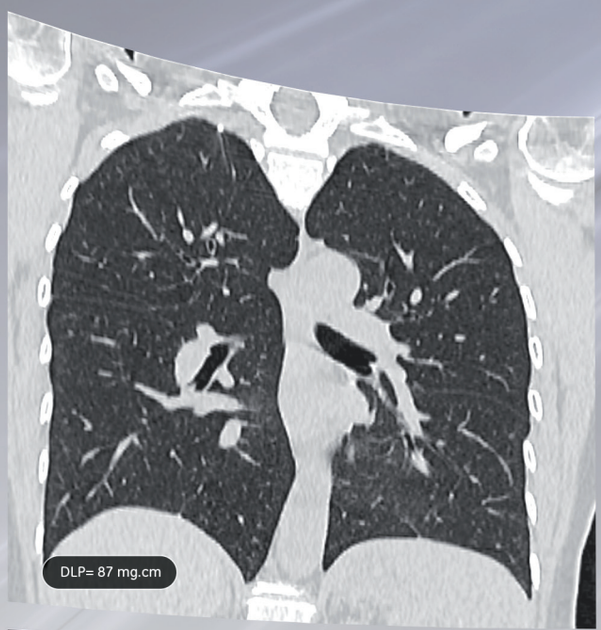
Spatial resolution

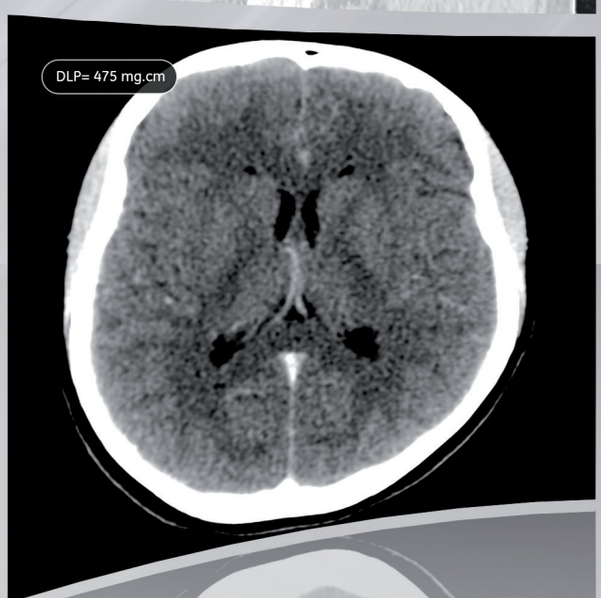


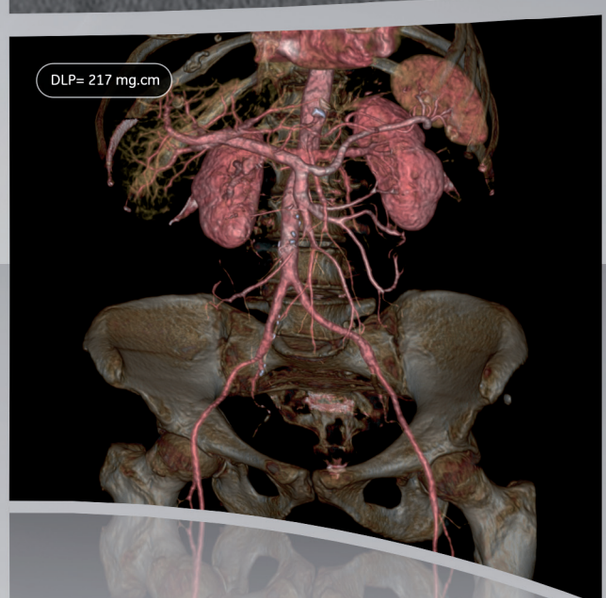
Cardiovascular



Acquisition speed







Dose

Optima* CT660S, a CT for today and toma

While we designed the Optima* CT660S to meet your current needs, we made sure it could evolve as your institution grows.

The Optima* CT660S's workflow, image performance, and coverage works for you today, and available options ensure that it will help to meet your needs tomorrow.

With our different a la carte optional packages, you will be able to add new capabilities to your Optima* CT660S at any stage and at reasonable cost.

Helping you save money everyday

The Optima* CT660S embodies the GE commitment to affordable technologies that help make clinicians more efficient and quality care available to more people, help make clinicians more efficient, in an environmentally conscious manner.

The Optima* CT660S is among the world's most energy efficient Volume CT systems. It helps optimize your investment through 60% lower energy consumption with its energy saving mode using an innovative electronics design & using overnight "sleep" mode. Additionally, its compact design requires a smaller footprint enabling you to save up to 24% in floor space compare to previous GE CT scanners.

norrow

A dedicated service offering without compromise

The Optima* CT660S has been designed to address your needs and fit within your budget constraints. Whether it is through payment terms, or a clear coverage commitment that matches the clinical usage of your Optima* CT660S, we will enable you to manage your operational expenses accordingly.

You get a simple and clear service level agreement that allows you to better plan your annual budget while being assured of excellent resource support.

IT

Mobility

AW

Dexus

Beyond post-processing image efficiency, a co m
to extend your Optima* CT66 0S

Clinical relevance is the main driver of GE Healthcare's post-processing software

Since 1990, improvements in the company's offering has led to a robust and constantly-enriched foundation—coming directly from the modality's latest innovations. Today it provides a unique and consistent multimodality 2D, 3D, and 4D environment, placing patient pathology in the center. On top of this foundation is GE Healthcare's large portfolio of vascular, cardiac, oncology, and neurology advanced applications, that enhance scanner capacities to provide accurate assessments.

o mprehensive solution is available
60S experience.

Clinical relevance without system interoperability means nothing

CT scanners can increase body exploration capacities. Additionally, the volume of data is growing fast and managing it becomes time-consuming and complex. That is why DEXUS ensures deep integration with medical equipment—CT, MRI, PET-CT, Vascular—and your RIS and PACS systems. Because communication alone is not enough, DEXUS provides Workflow Booster, an automatic case preparation and preprocessing tool.

Unleash the power and access it from anywhere

Complex pathologies may require team work and expertise sharing—inside or outside of your facility. GE Healthcare's client server model, AW Server, complements the traditional AW workstations, offering a centrally-managed, post-processing engine accessible from any PC*1 or Mac*1 staff meeting, radiologist office, or outside if allowed.

*1 Following systems are supported: Windows® XP, Vista & Windows 7, AW Workstations, Mac® (using Windows Parallel)

*2 IT team needs to configure appropriate access to server from outside the facility.

Data subject to change.
Marketing Communications GE Medical Systems
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* Trademarks of General Electric Company.

** option.

*** Trademark and option

\+ ASiR (Adaptive Statistical Iterative Reconstruction) is a reconstruction technology that may enable reduction in pixel noise standard deviation. The ASiR reconstruction algorithm may allow for reduced mA in the acquisition of diagnostic images, thereby reducing the dose required.

° In clinical practice, the use of ASiR 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.

Some configurations and options of Optima* CT660S may not be available to market or for sale in some countries.

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About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

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GE imagination at work

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