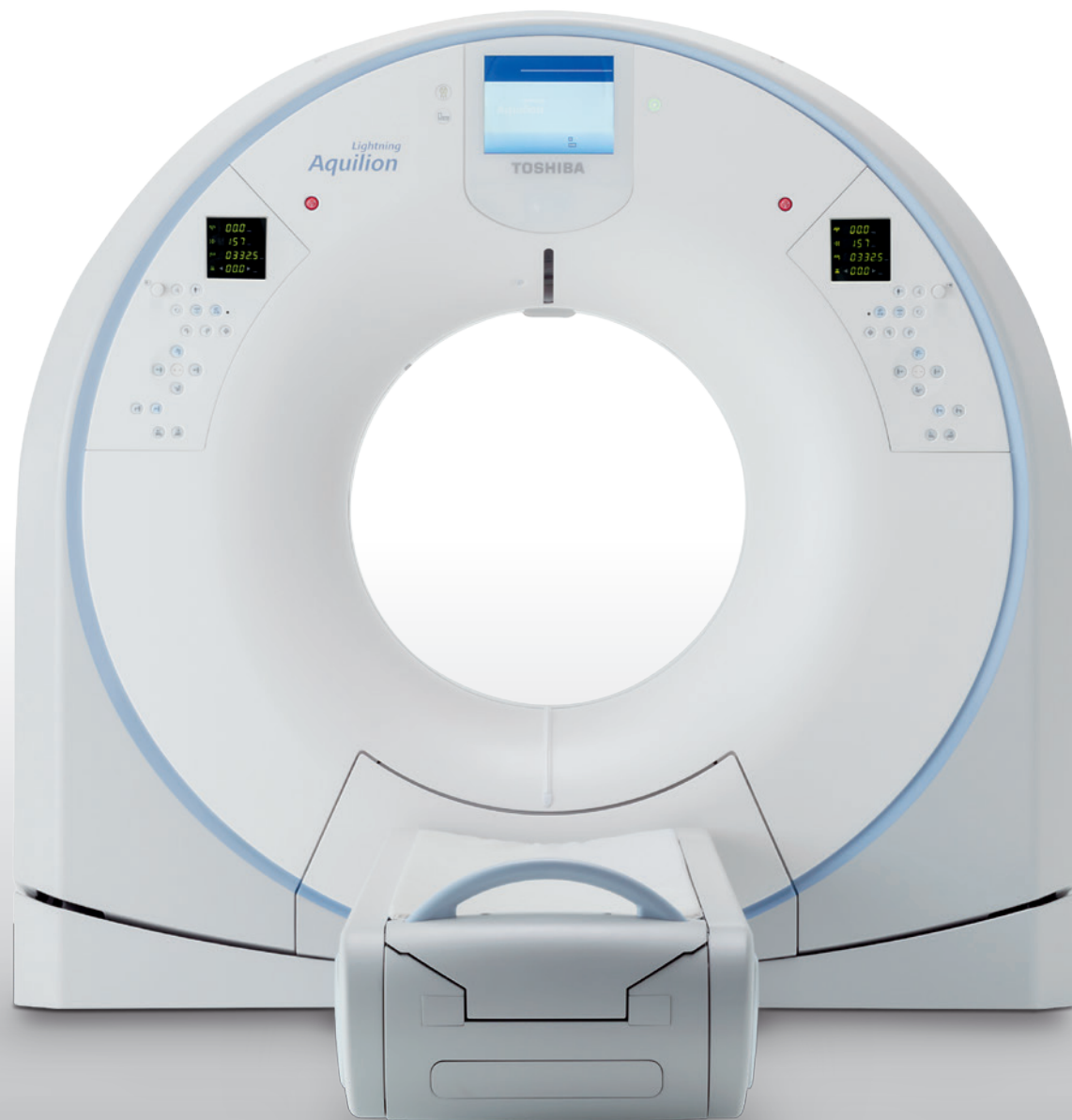


**TOSHIBA  
MEDICAL**

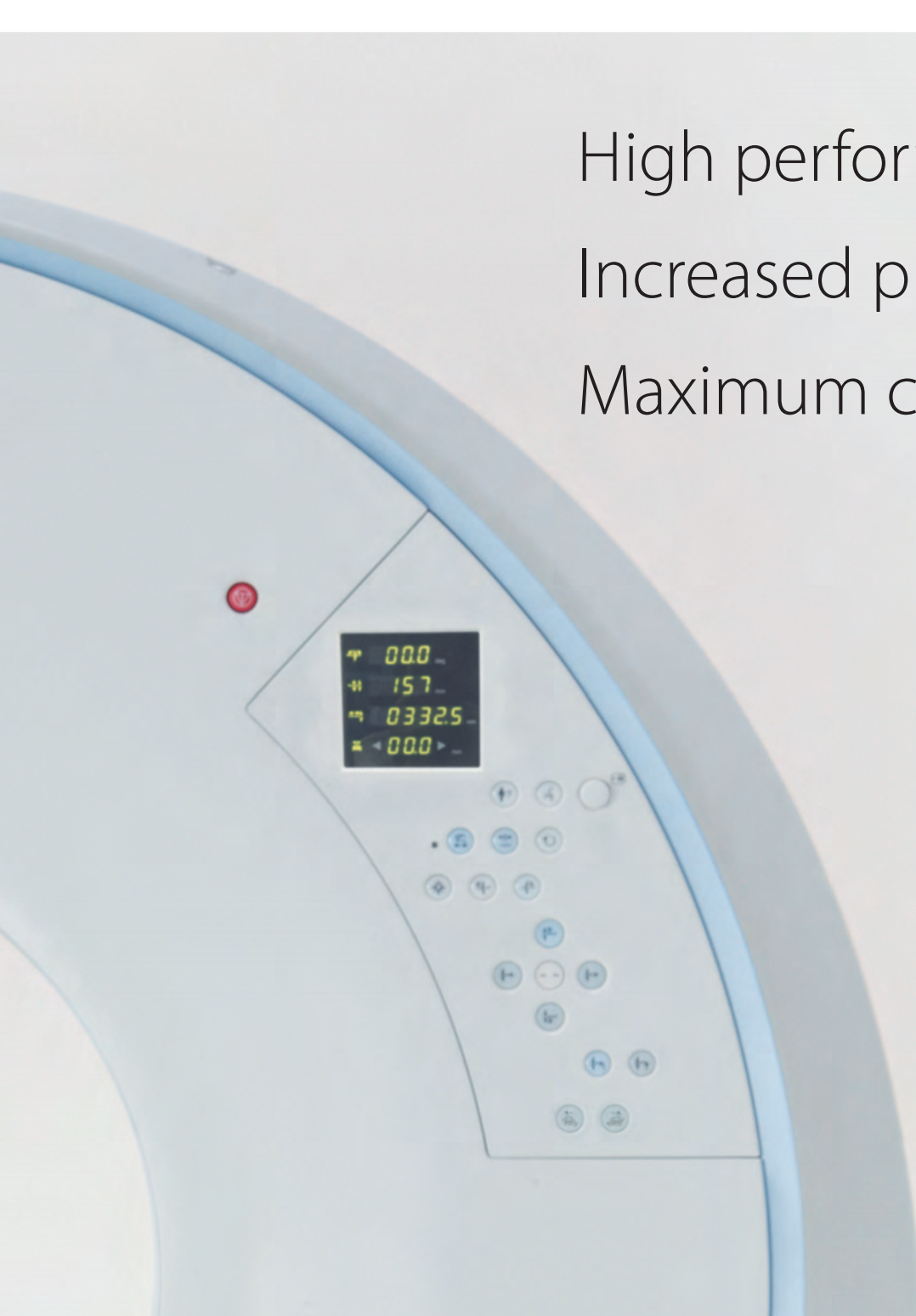


***Aquilion Lightning***<sup>™</sup>

Trusted Performance.  
Smart Investment.

80 detector row Ultra Helical CT





High performance, highly economical  
Increased productivity and patient safety  
Maximum clinical capabilities

Are you looking for a CT scanner that helps provide better care and safer imaging in a compact, affordable package? The Aquilion Lightning is an 80 detector row scanner that delivers.

The system is designed to operate reliably and efficiently in a busy environment, producing high quality images.

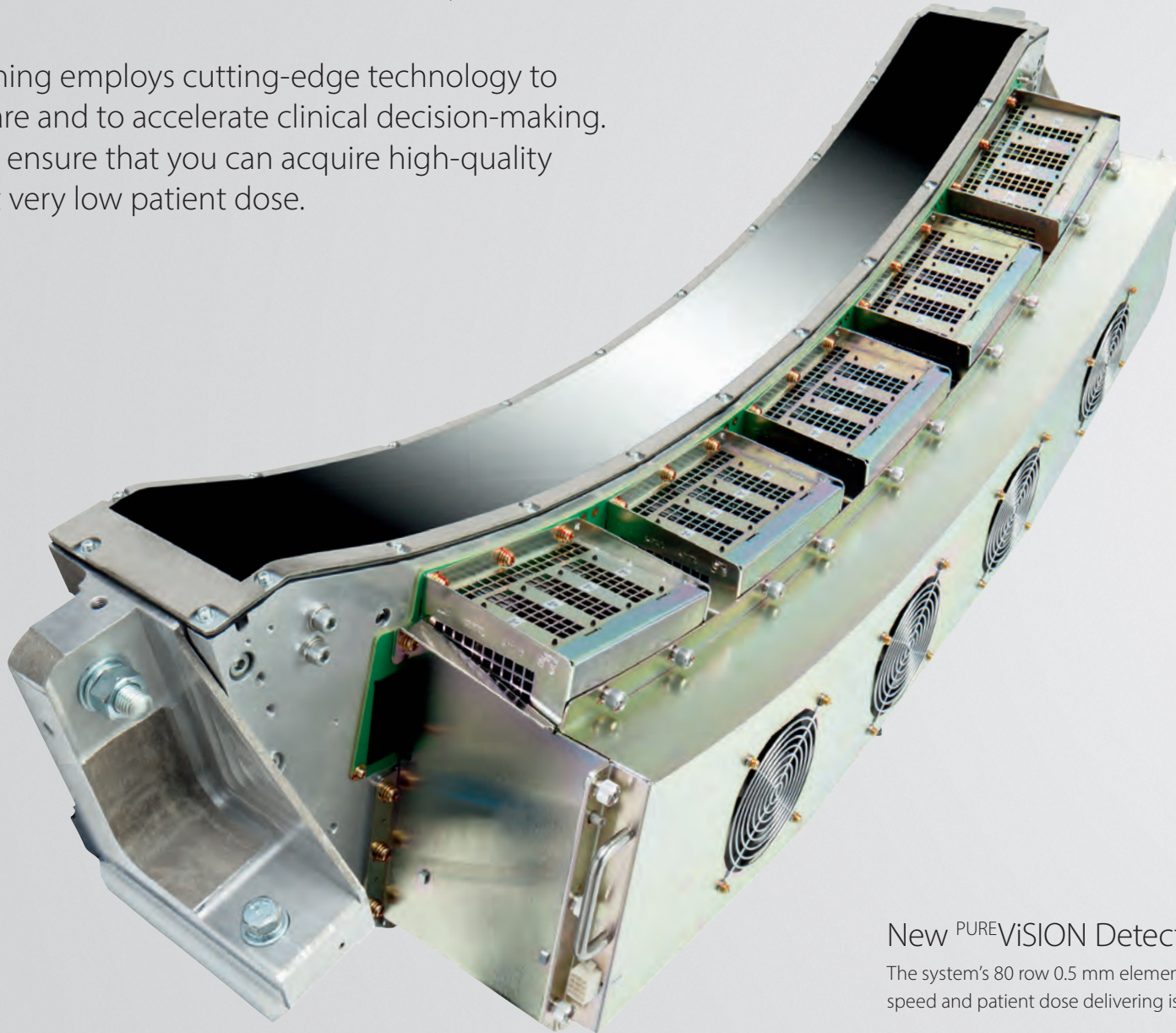
Aquilion Lightning can be configured and in field upgraded from 40-80-160\* slices.

Aquilion Lightning – a smart investment.



# High performance, highly economical

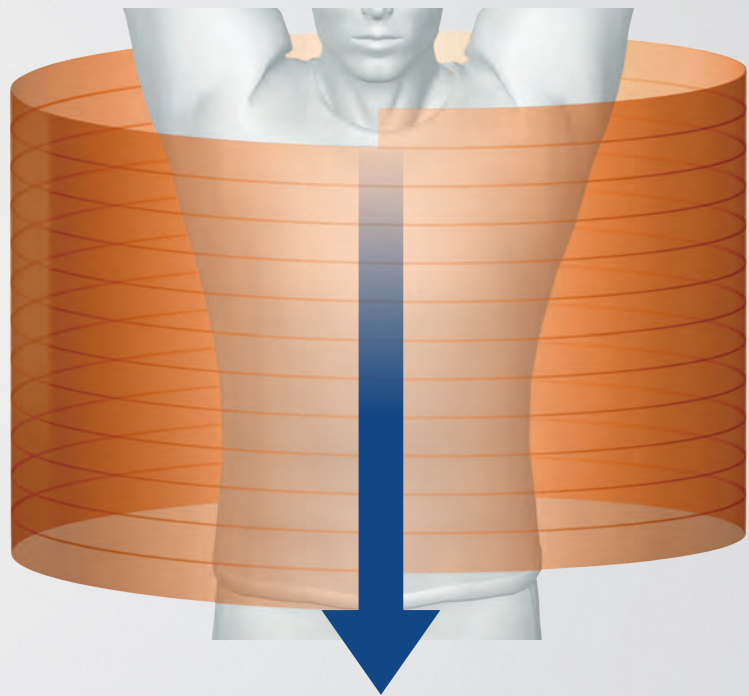
The Aquilion Lightning employs cutting-edge technology to optimize patient care and to accelerate clinical decision-making. Innovative features ensure that you can acquire high-quality images routinely at very low patient dose.



## New <sup>PURE</sup>VISION Detector

The system's 80 row 0.5 mm elements balance image quality, speed and patient dose delivering isotropic images in all planes.





## Ultra Helical Scanning

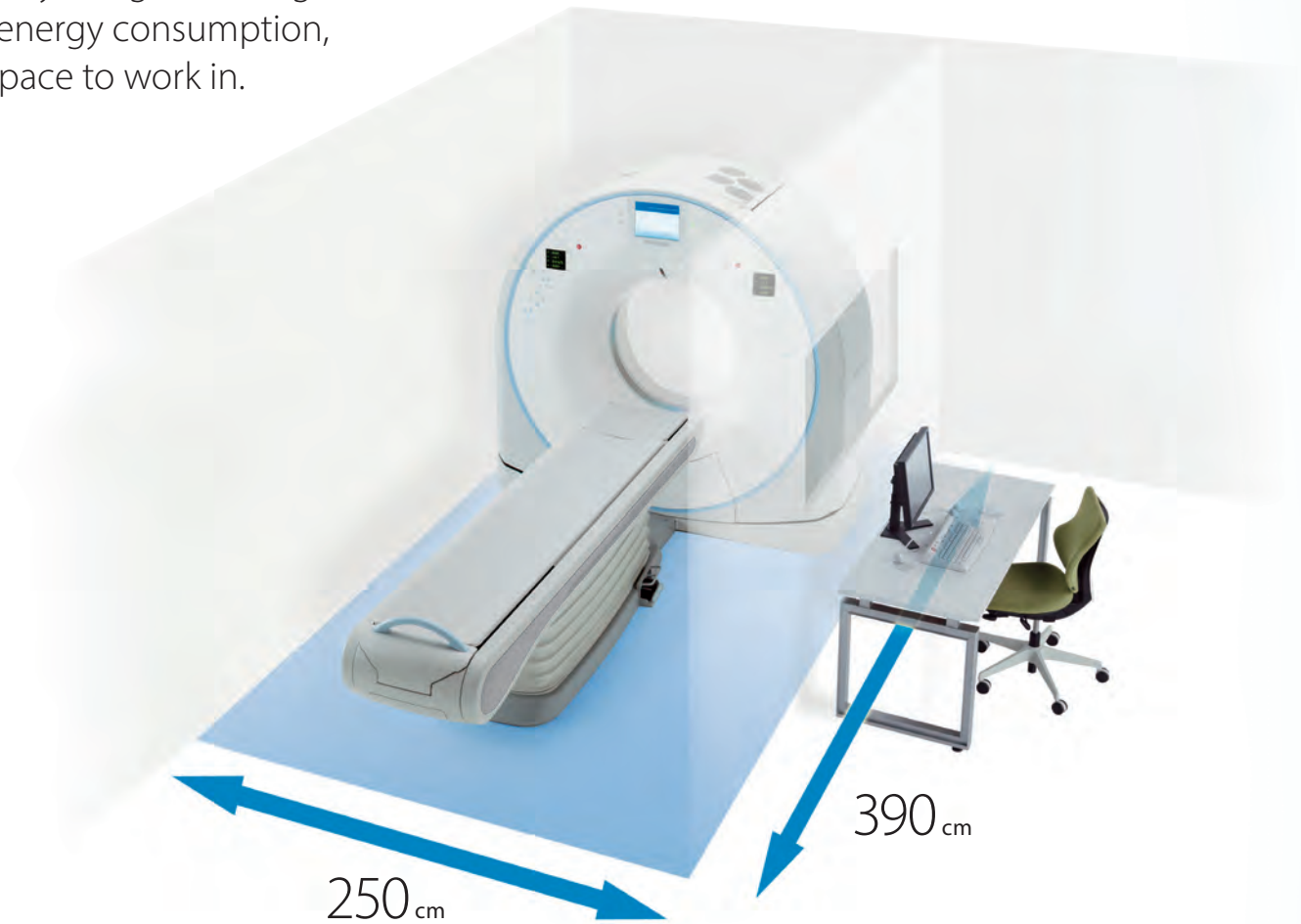
Shifting from 64 to 80 detector rows with up to 160\* slices with the Aquilion Lightning results in shorter scan times and higher quality imaging.

\*coneXact double slice reconstruction



# Helping you economize on space and energy consumption

Aquilion Lightning has been thoughtfully engineered to meet today's economic challenges. With a gantry design focusing on smaller installation space and lower energy consumption, Aquilion Lightning provides you more space to work in.



WIDE



FAST



SMALL

\*1 Option  
\*2 With short couch



## Power saving

Aquilion Lightning incorporates a host of innovative adaptive power management technologies, helping you to decrease energy consumption to reduce your running costs while minimizing your environmental footprint.



# Increased productivity and patient safety

Aquilion Lightning incorporates the latest hardware, software and reconstruction technologies allowing you to keep pace with your busy workload while maintaining the best image quality.

The system provides streamlined workflow and easy patient setup. A fast and efficient examination with automated minimal dose selection ensures both optimal imaging results and patient experience.



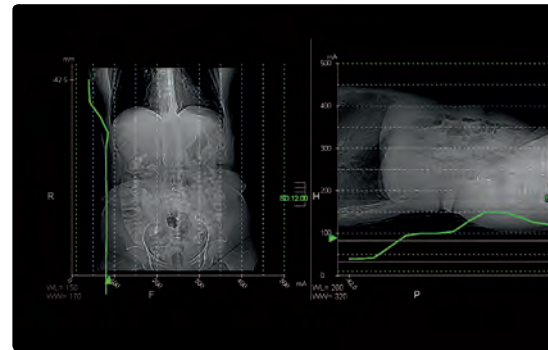
## Exam Plan

### Protocol selection

After patient registration Aquilion Lightning selects the correct adult or child protocols automatically.

### Dose check

Aquilion Lightning helps ensure that the radiation dose limit you defined cannot be exceeded to avoid unintended high dose levels.



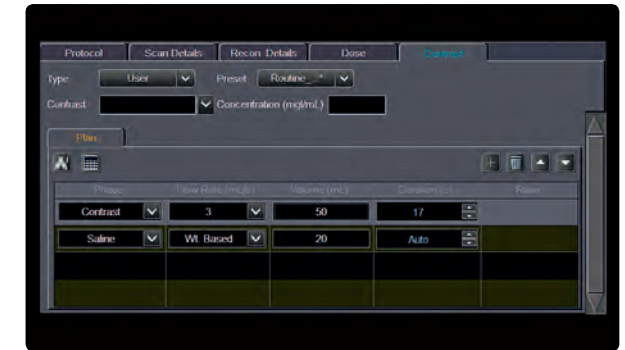
## Scan

### SUREExposure™ 3D

This fully integrated automatic exposure control ensures optimum image quality and patient dose.

### Real-time imaging

The system provides real-time imaging during the scan allowing you to monitor the result instantaneously – a valuable tool for saving scan time.



### Contrast Management

By allowing contrast protocols to be added to your exam plan, flow rate and volume are automatically based on actual patient weight and exam type, while the injection is synchronized with the scan.

### Automated kV selection

SUREkV automatically uses the lowest kV setting for CTA examinations.





## Reconstruction

### AIDR 3D Enhanced

Toshiba Medical's Adaptive Iterative Dose Reduction (AIDR) technology can be applied to all examinations resulting in dose reductions.

### Fast reconstruction\*

With a reconstruction speed of up to 50 images per second\* at full resolution, high patient throughput is facilitated.

\*Option



## Fast and efficient patient setup

The Aquilion Lightning gantry features design innovations improving the scan experience for patients while providing excellent operability and work safety for the technician.



The ①-Station display provides child-friendly exam instructions and gives operators feedback for breath-holding, ECG, scan parameters and patient ID.

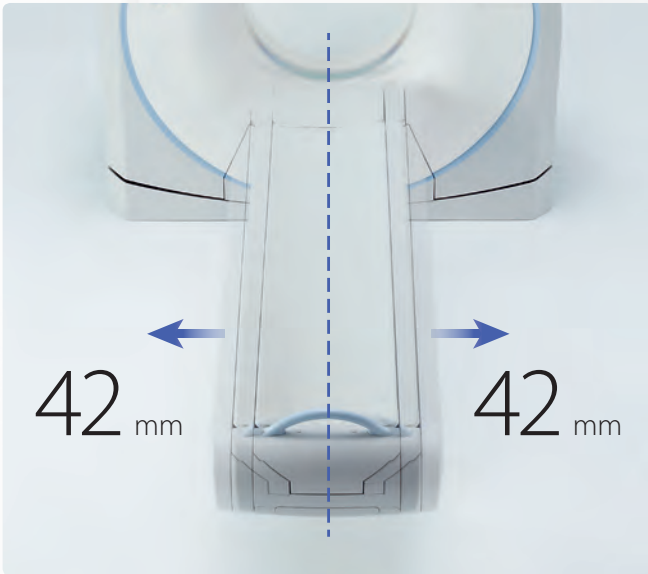


The spacious 780 mm wide bore and 470 mm wide patient couch allow comfortable scanning for large patients.



The couch top can be lowered to a minimum height of 312 mm for facilitating patient loading and transfer from a wheelchair or bed.





Tech Assist Lateral Slide\* offers safety and comfort by providing motorized positioning of the patient, reducing the risk of injury to the patient and the technologist.

\*Option







## Optimized clinical workflow

Aquilion Lightning is designed to handle busy workloads with ease. The system's intuitive user interface guides you step by step through the examination with modern and easy-to-understand graphics and animations. A host of intelligent functions enable a fast and efficient workflow.

### HybridView

Save time and storage space with Toshiba's hybrid reconstruction algorithms. These advanced reconstruction algorithms provide sharp lung images and excellent soft tissue resolution in the one image. Reading times are shortened as you only need to concentrate on a single series to make a diagnosis.





## Automated kV selection

Standard on Aquilion Lightning <sup>SURE</sup>kV automates kV selection based on patient's size and clinical task. As part of Toshiba Medical's <sup>SURE</sup>Exposure technology, this function can help optimize the use of iodine contrast.



## Zero-click workflows

Protocol integrated applications make complex exams easy with robust and reproducible results.

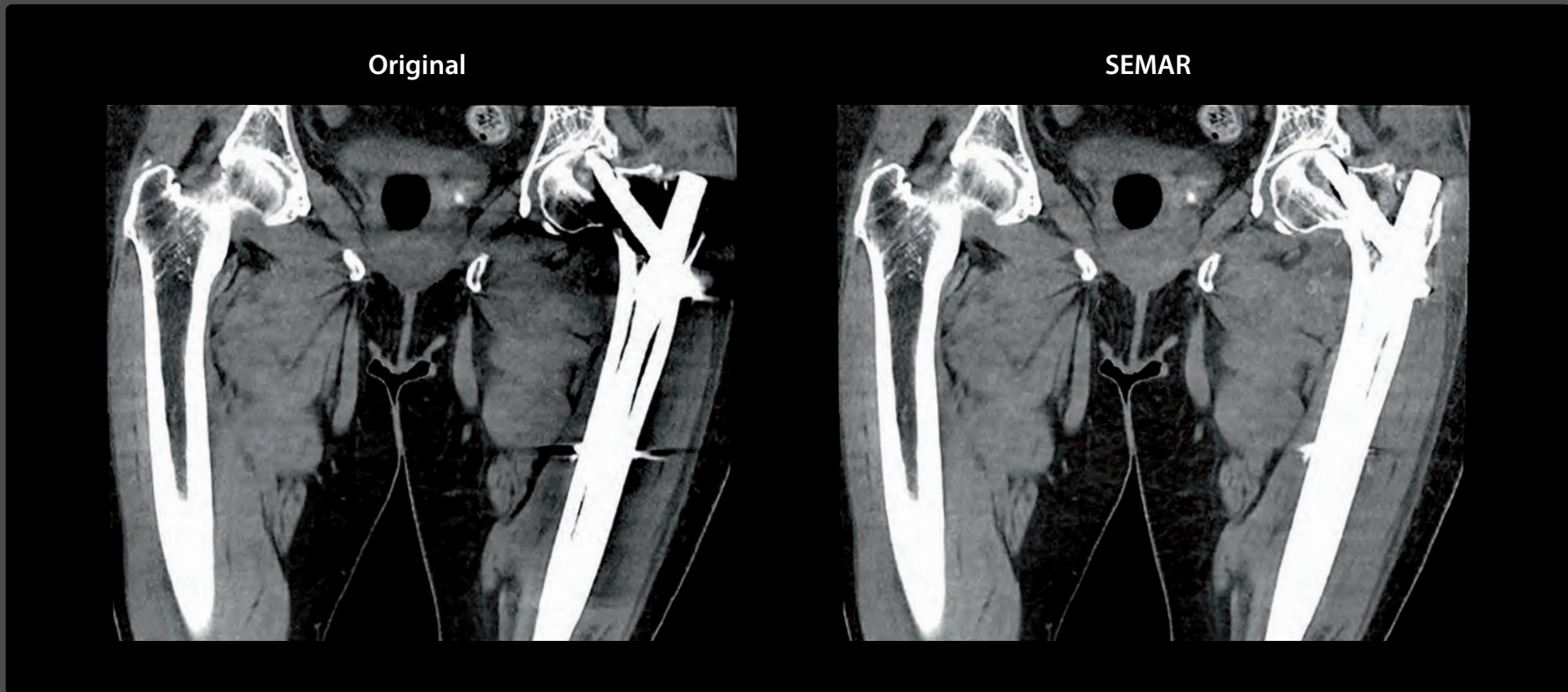
These include:

- <sup>SURE</sup>Subtraction™ automated bone subtraction
- Multiview automated MPR and MIP reconstruction
- AIDR 3D enhanced reconstruction



# Maximum clinical capabilities

Aquilion Lightning offers Toshiba Medical's comprehensive suite of Adaptive Diagnostic imaging solutions that simplify complex protocols and provide consistent quality results.



## Dose-neutral metal Artifact reduction with SEMAR™

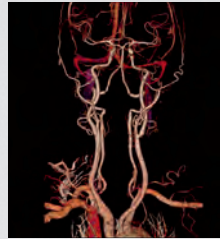
Toshiba Medical's Single Energy Metal Artifact Reduction (SEMAR) utilizes a sophisticated reconstruction technique to reduce artifacts caused by metal and improves visualization of the implant, supporting bone, and adjacent soft tissues.



# Solving your clinical challenge

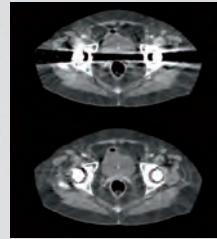


SURESubtraction\*



Automated bone and calcium subtraction

SEMAR



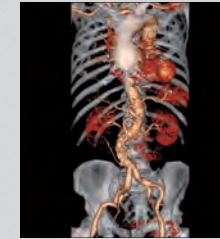
Metal artifact reduction

Dual Energy\*



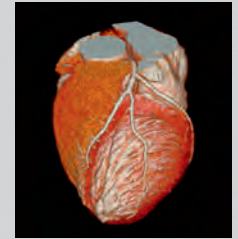
Tissue visualization

Variable Helical Pitch (vHP)\*



Prospective scanning

SURECardio™\*

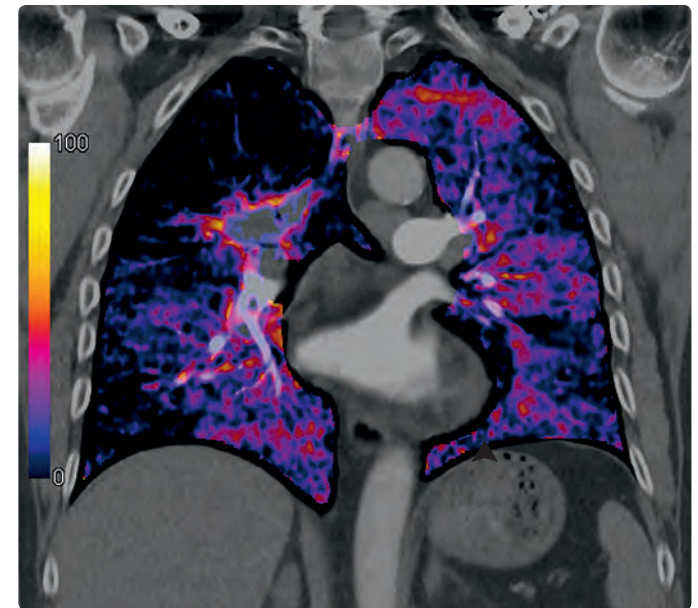


Arrhythmia detection



Subtraction CTA\*

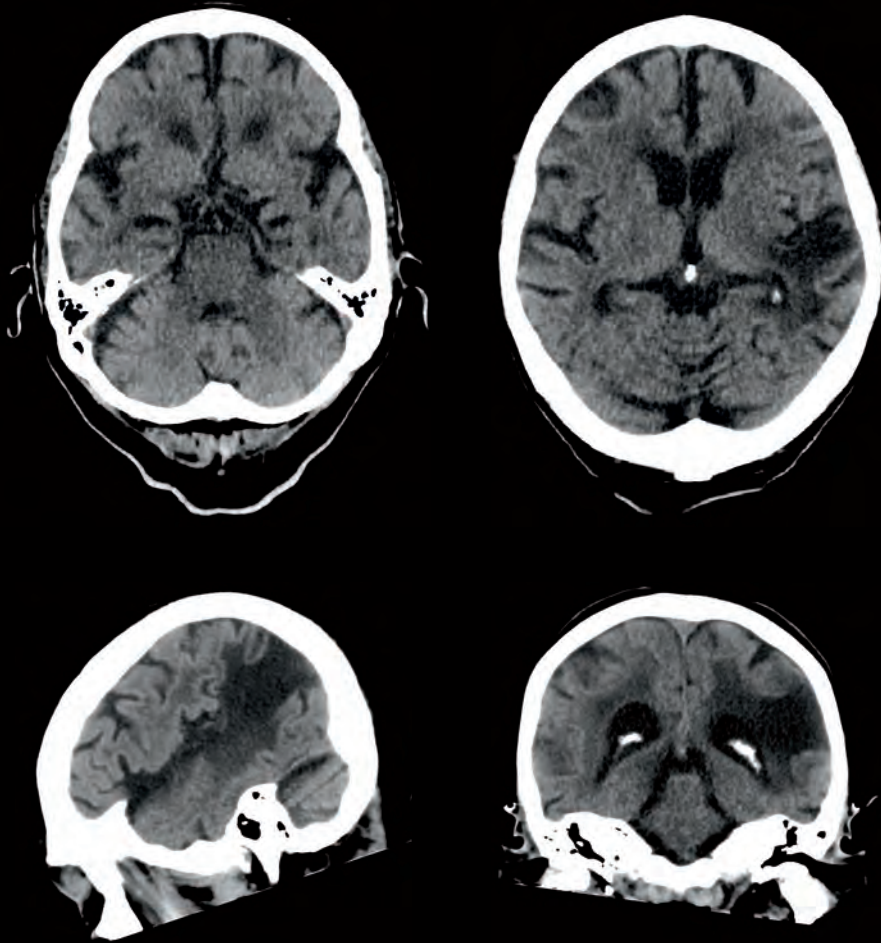
Superior visualization in CTA with true subtraction of bone and calcification.



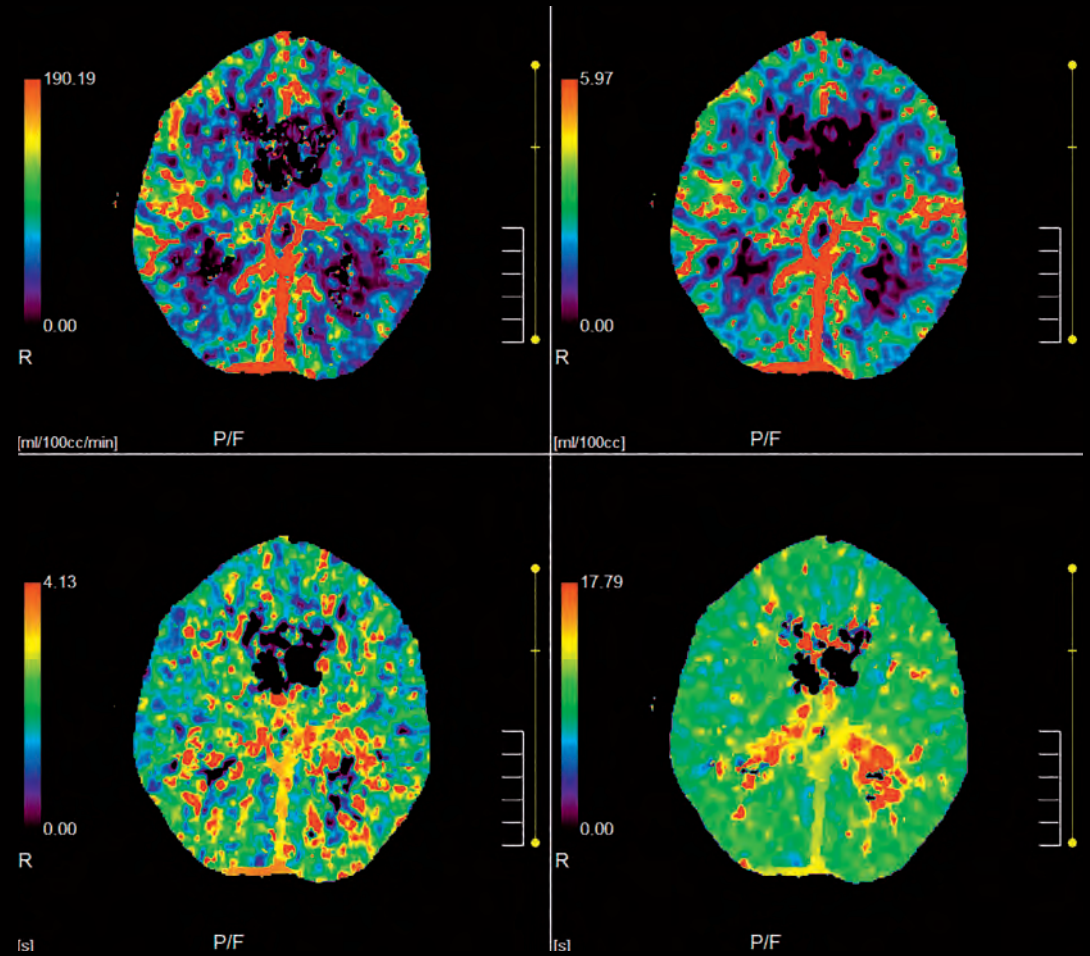
SURESubtraction Lung\*

Automated Iodine Maps as a result of advanced registration and SURESubtraction Lung algorithm.

# Neuro imaging



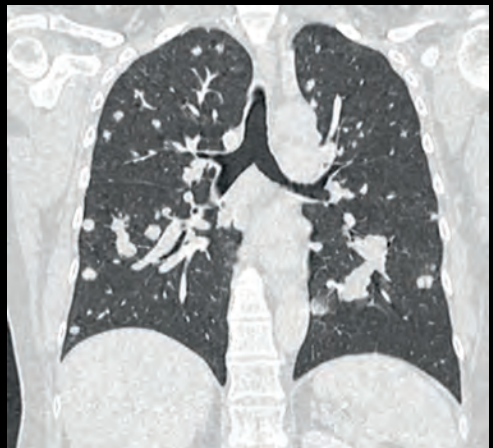
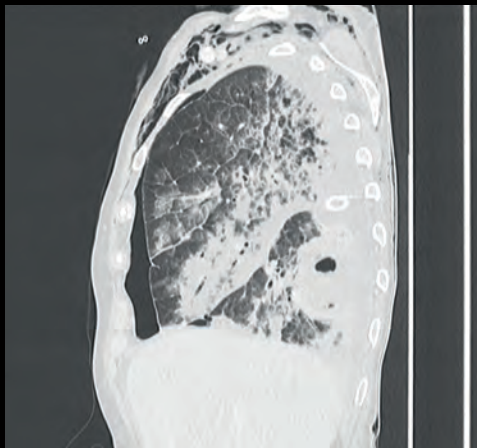
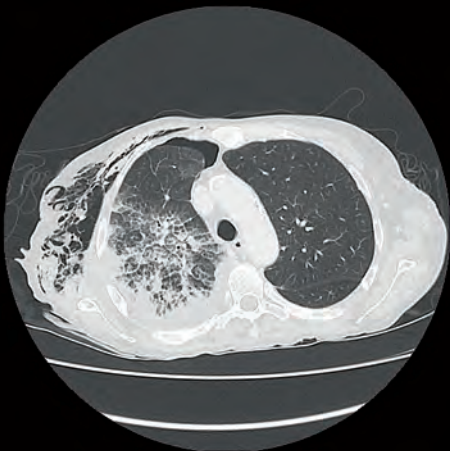
Superb brain image quality with clear grey-white matter differentiation and significantly reduced artifacts.



CBP for evaluation of patients with cerebrovascular disease.



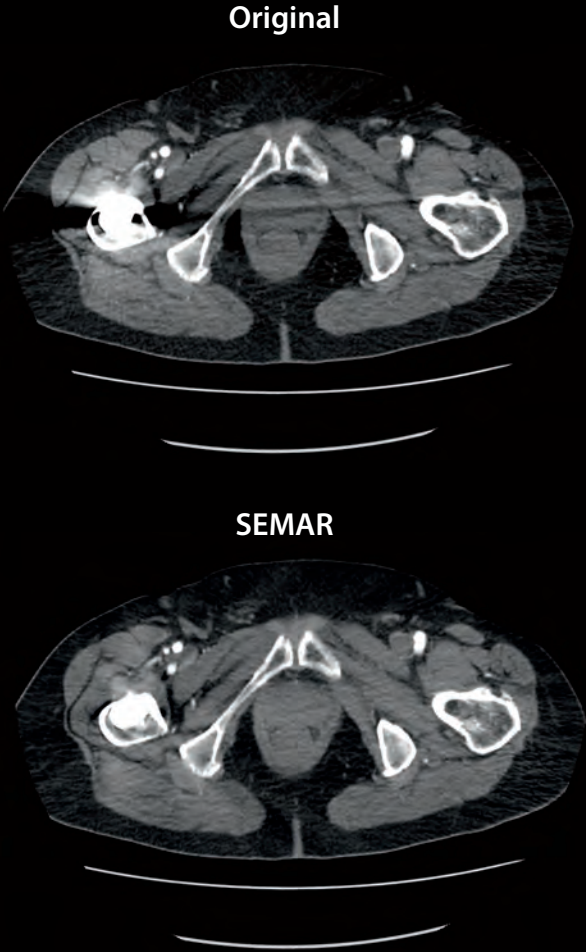
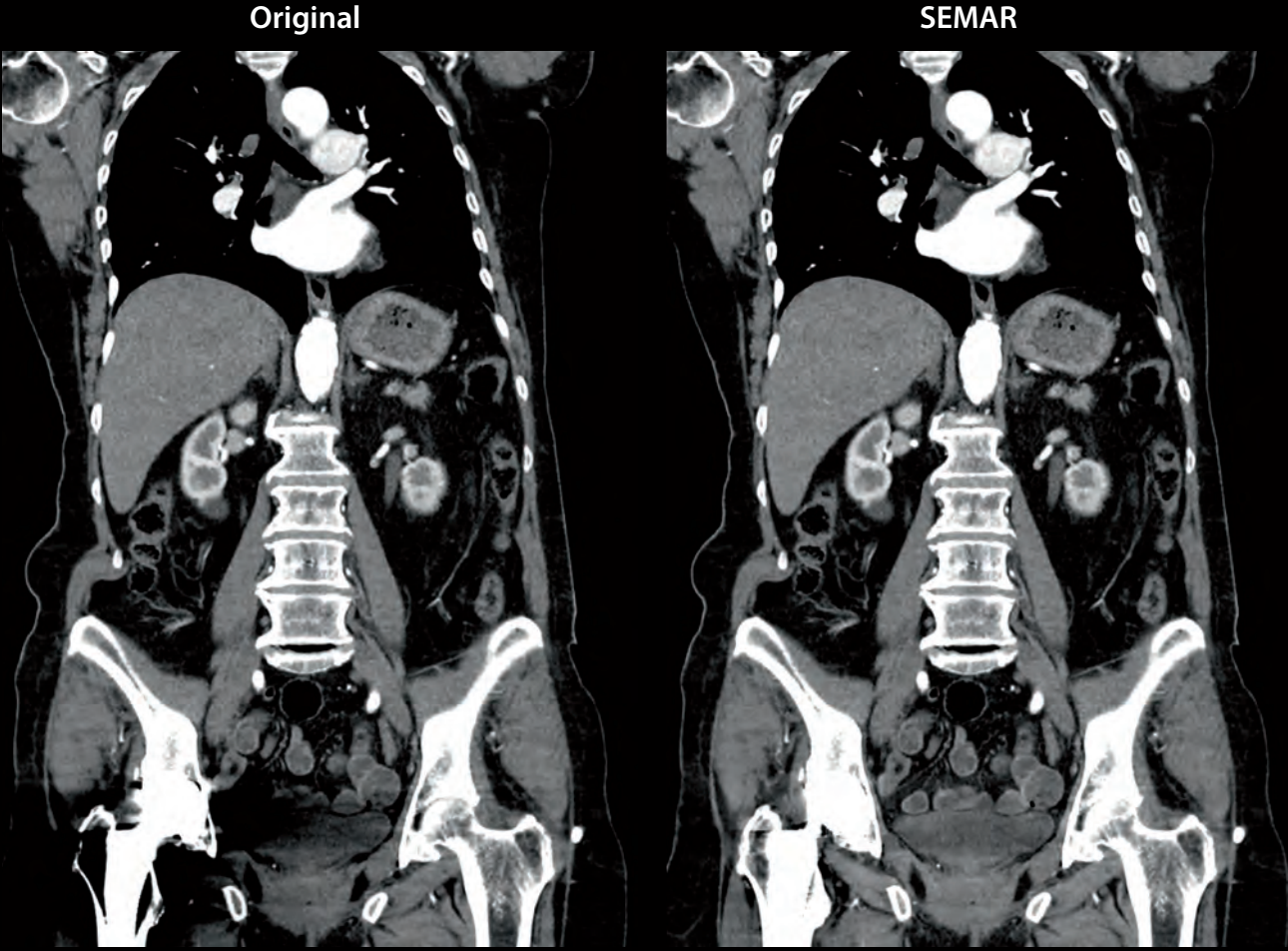
# Chest imaging



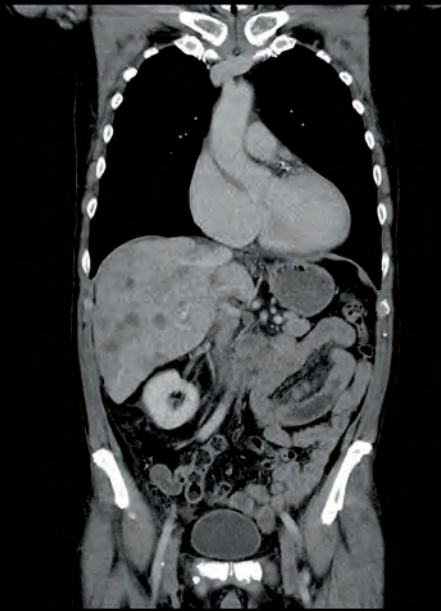
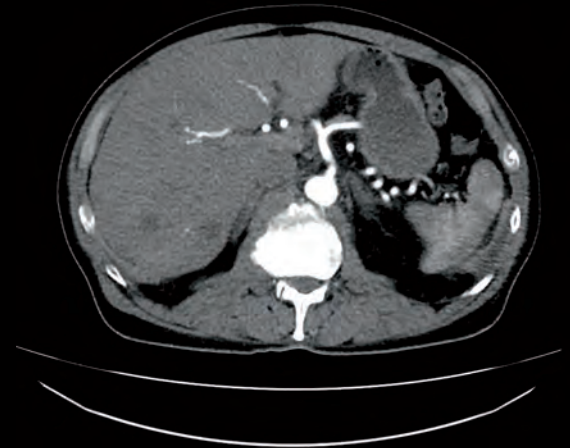
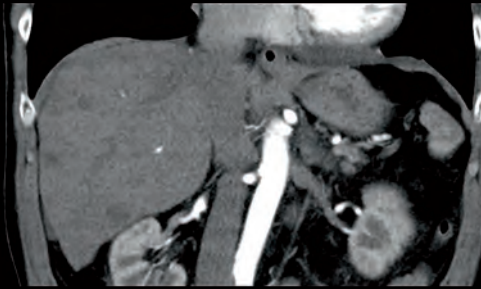
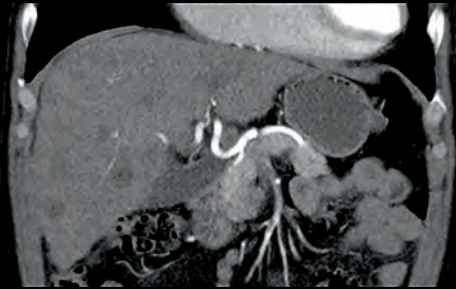
Fast and low-dose scanning of the chest allowing for superb image quality even in challenging patients with hybrid FC.



# Abdominal imaging



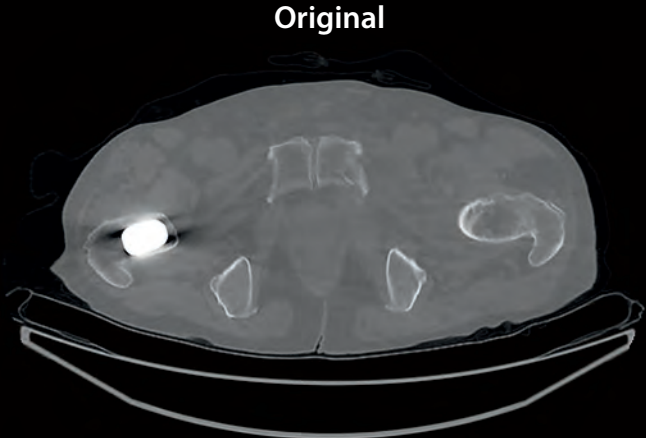
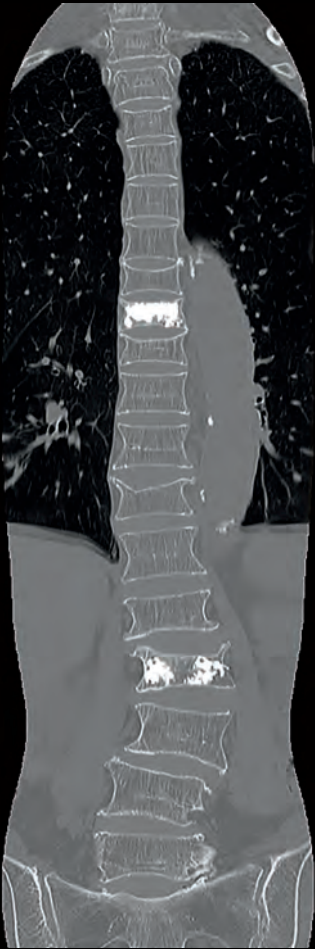
Reduce metal artifacts in all your patients independent of the scan acquisition using SEMAR.



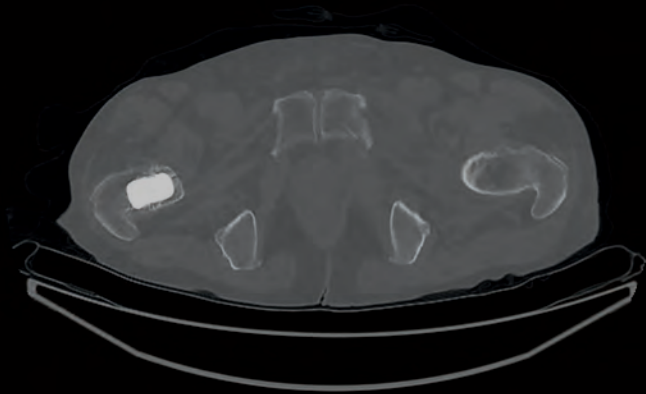
Automated kV selection based on patient's size and clinical task with <sup>SURE</sup>kV.



# MSK imaging



Original



SEMAR

Excellent bone resolution with 0.5mm <sup>PURE</sup>VISION Detector technology.

Reduce metal artifacts without an increase in dose with SEMAR.



Original



SEMAR



Outstanding image quality and fast reconstruction with fully iterative reconstruction; ADR 3D.







## Main specifications

<b>Detector</b>		PUREVISION detector technology
		80 rows of 0.5 mm
<b>Gantry</b>	Rotation time	0.6 s / 0.5 s <sup>*1</sup>
	Generator	50.4 kW / 112 kW equivalent with AIDR 3D
	Bore aperture	78 cm
	Tilt	± 30°
<b>Patient couch</b>	Max. load	300 kg (660 lbs)
	Max. scan range	150 – 200 cm <sup>*1</sup>
<b>Reconstruction speed</b>	Helical	20 fps / 50 fps <sup>*1</sup>
	Iterative reconstruction	AIDR 3D Enhanced
<b>Reconstruction</b>	FOV	500 mm
	Power capacity	72 kVA
<b>Installation</b>	Min. installation space	9.8 m <sup>2</sup> (short couch)
	Image quality	Spatial resolution

<sup>\*1</sup> Option

<sup>\*2</sup> For reference



**WARNING:** Any reference to X-ray exposure, intravenous contrast dosage, and other medication is intended as a reference guideline only. The guidelines in this document do not substitute for the judgment of a healthcare provider. Each scan requires medical judgment by the healthcare provider about exposing the patient to ionizing radiation. Use the As Low As Reasonably Achievable (ALARA) radiation dose principle to balance factors such as the patient's condition, size and age; region to be imaged; and diagnostic task.

**Disclaimer:** In clinical practice, the use of the AIDR 3D feature 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.

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# *Aquilion* Lightning

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[www.medical.toshiba.com](http://www.medical.toshiba.com)

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Toshiba Medical Systems Corporation Nasu Operations meets the Environmental Management System standard ISO 14001.

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*Made For life*