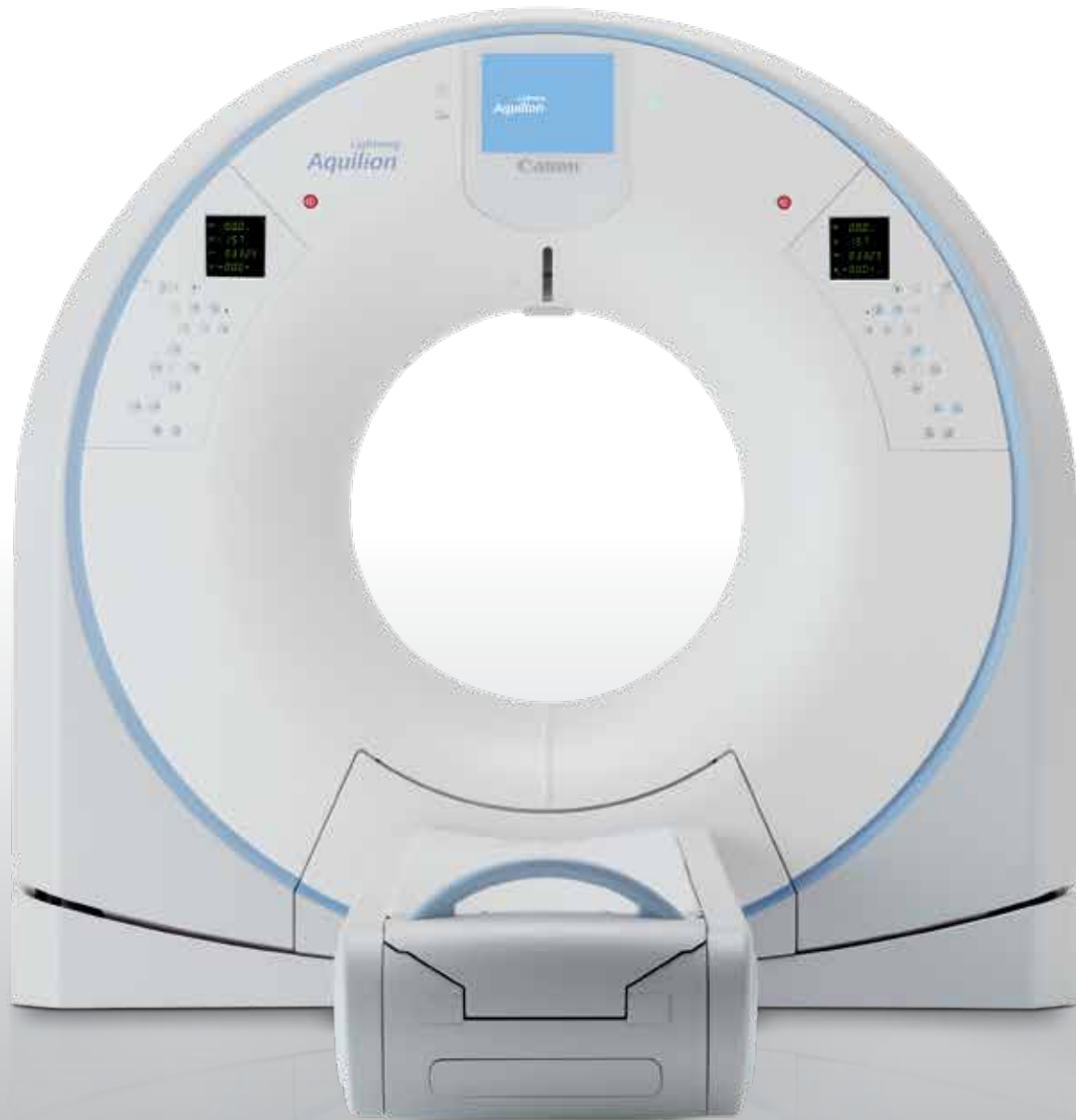


Canon



Aquilion *Lightning*

Trusted Performance.
Smart Investment.

160 slice Ultra Helical CT



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

Are you looking for a 160 slice CT scanner that helps provide better care and safer imaging in a compact, affordable package?

Designed to operate reliably and efficiently in a busy environment, the Aquilion Lightning now has deep learning innovation integrated into the existing hardware to deliver high quality images in a fast, cost-efficient way.

Aquilion Lightning — a smart investment, assisted by AI.

Welcome to the age of AI-assisted CT

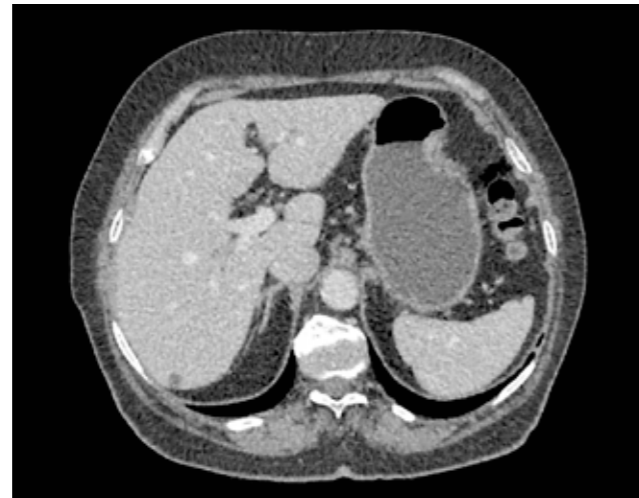
Advanced intelligent Clear-IQ Engine (AiCE) – Deep Learning Reconstruction

AiCE is an innovative approach to CT reconstruction that uses Deep Learning technology to match the spatial resolution and low-noise properties of advanced model-based iterative reconstructions.

Trained using vast amounts of high-quality image data, reconstructed with an advanced model-based iterative reconstruction (MBIR) algorithm, AiCE distinguishes true signal from noise to deliver exceptional images without compromising on dose.

AiCE has potential to aid in fast and confident clinical results by providing:

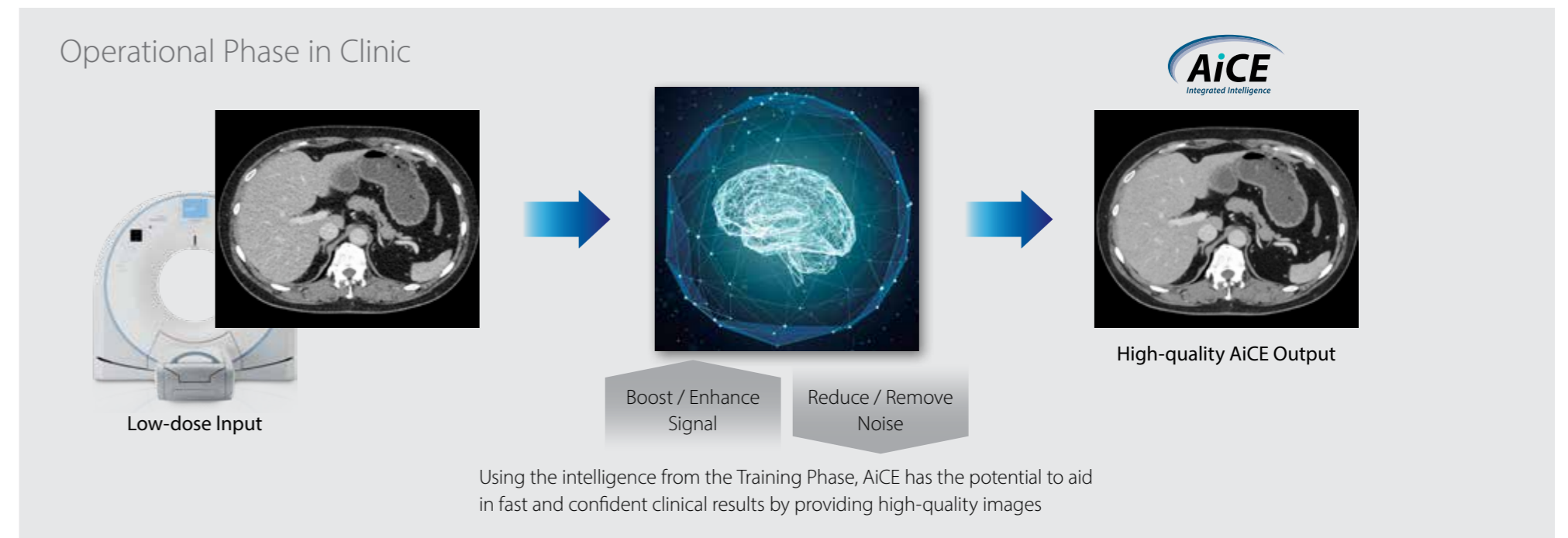
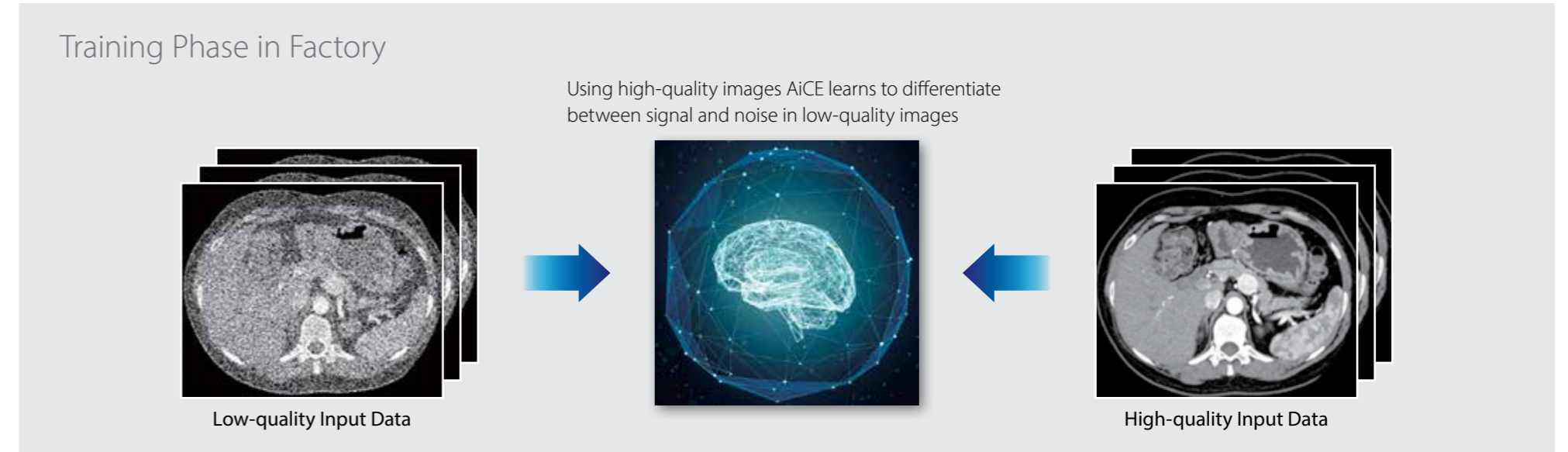
- ✓ Low Noise
- ✓ Natural Image Texture*
- ✓ Sharp High Contrast Resolution
- ✓ Clear Low Contrast Detectability



Hybrid IR



AiCE



* Compared to MBIR

Reduced noise, sharper images*

AiCE has been trained to reduce noise and boost signal to deliver sharp, clear and distinct images across many body regions.

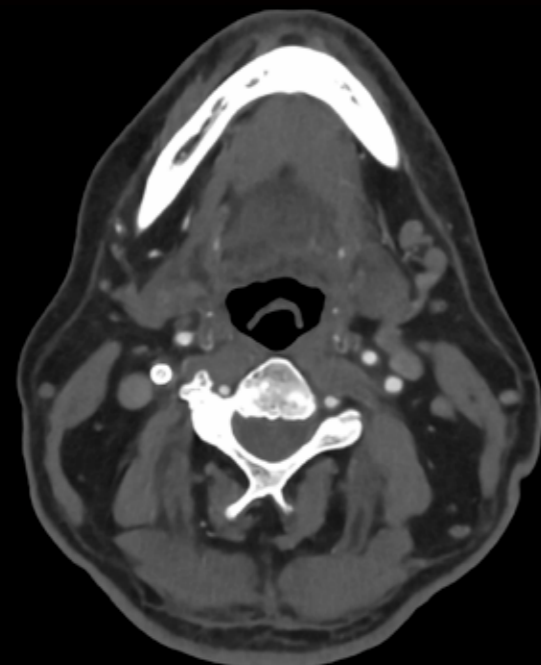
All Patients

All Exams

Brain



Neck



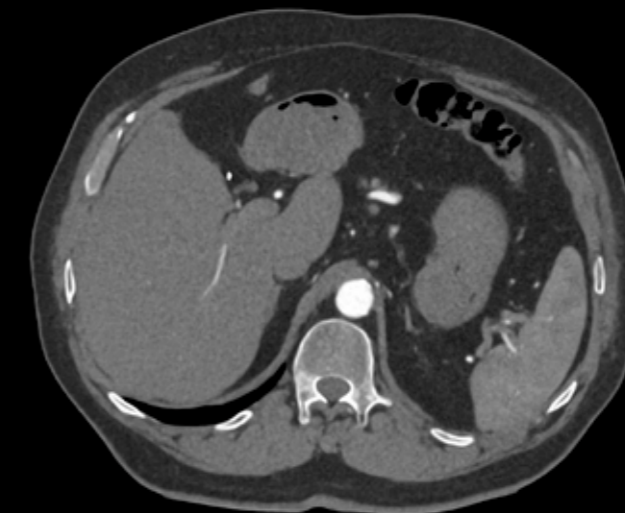
Lung



CTA



Body

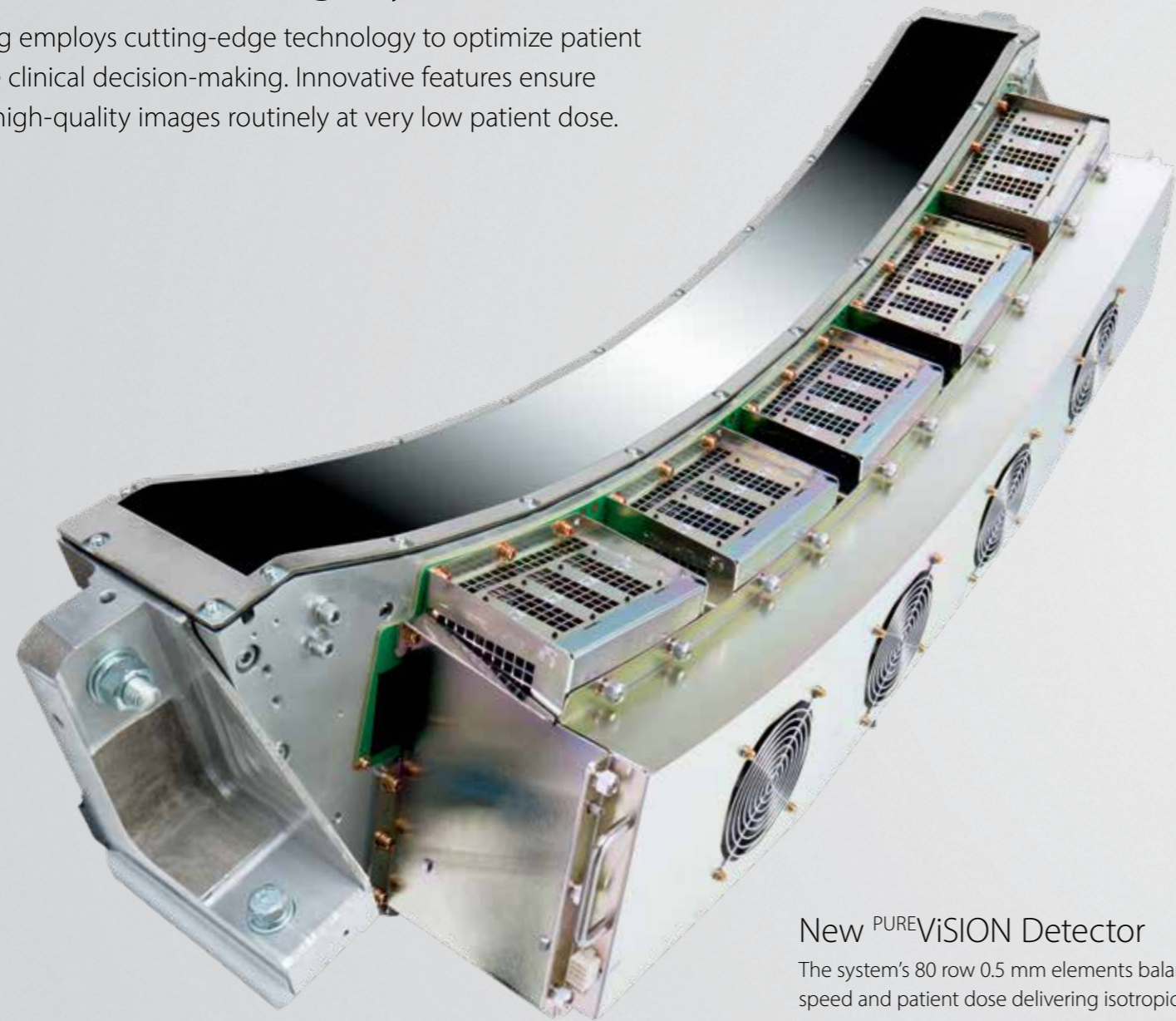


Bone



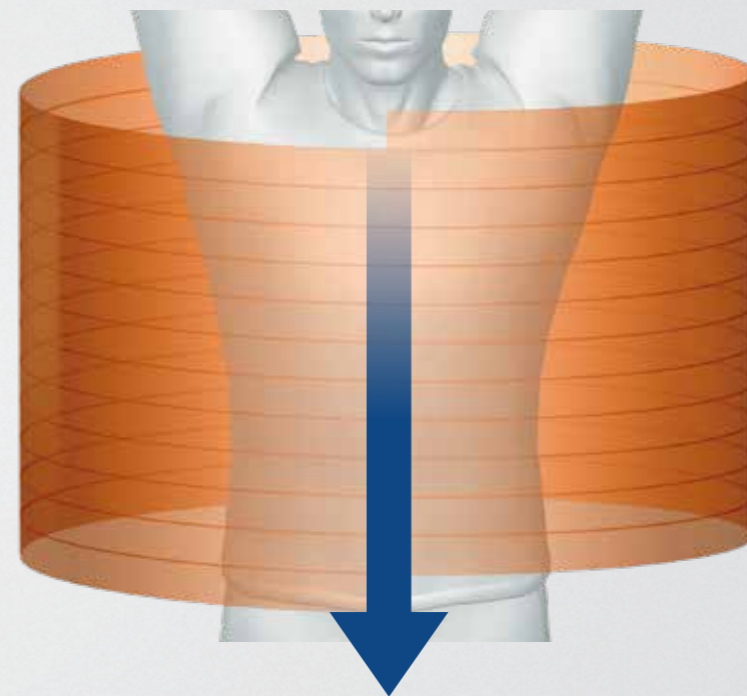
High performance, highly economical

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 PUREVISION 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

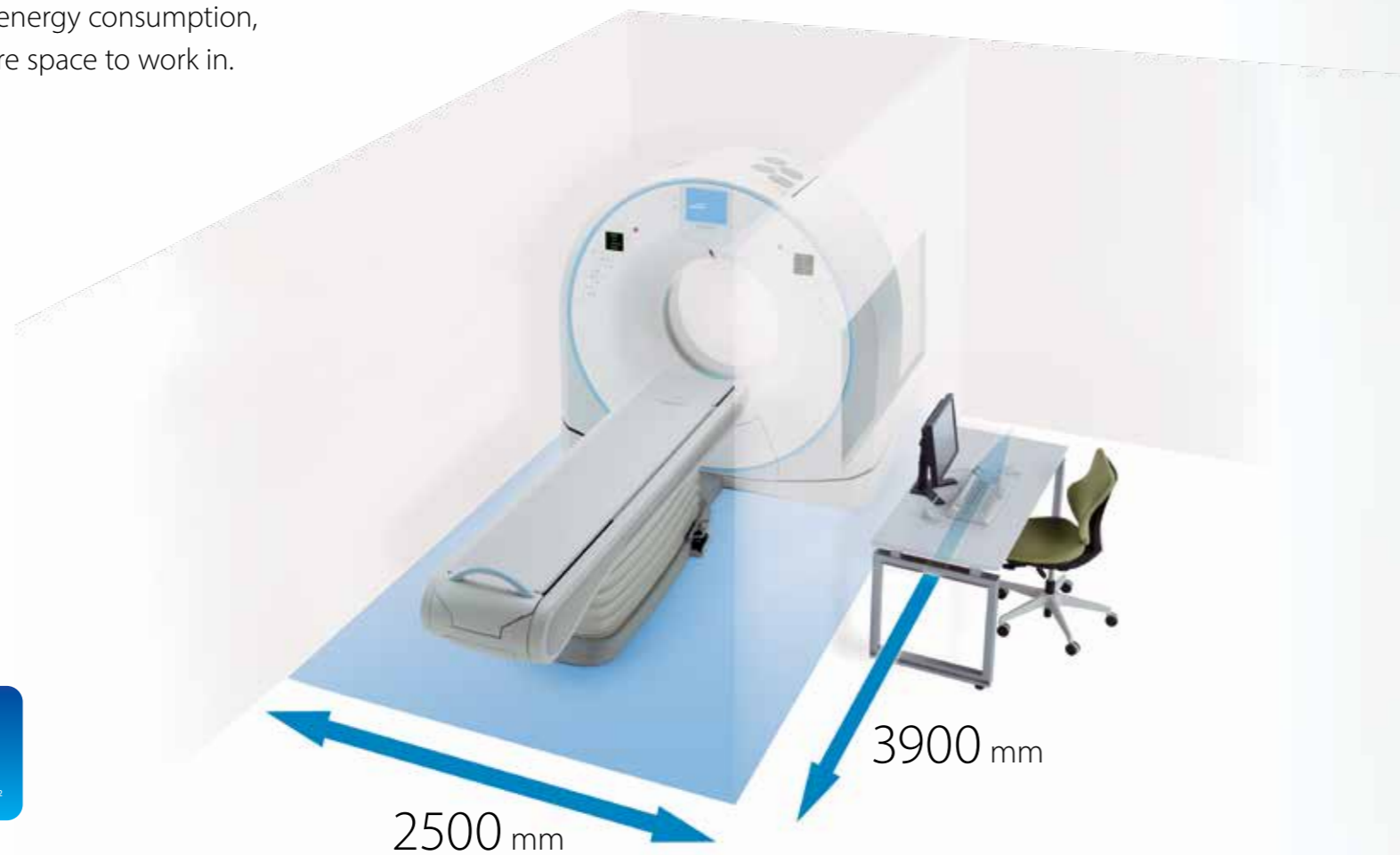
Shifting from 64 to 80 detector rows with up to 160* slices with the Aquilion Lightning results in shorter scan times and higher quality imaging.

*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 with Adaptive Iterative Dose Reduction (AIDR) 3D
*2 With short couch

Power saving

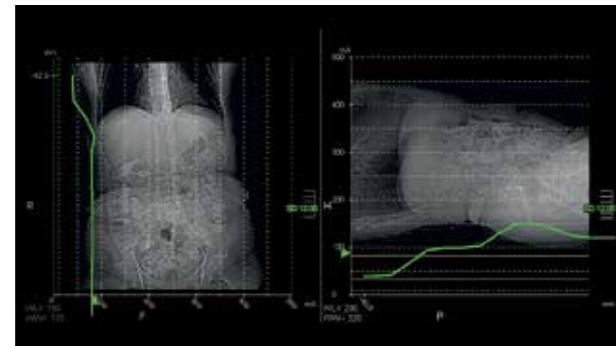
Aquilion Lightning incorporates a host of innovative adaptive power management technologies, helping you to decrease energy consumption to reduce your running costs while minimizing your environmental footprint.



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

SURE^{EX}posure 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

SURE^{kV} automatically uses the lowest kV setting for CTA examinations.

Reconstruction

Deep Learning Reconstruction

AiCE is integrated into the scan protocol to provide advanced diagnostic CT images with zero impact to the technologist's workflow. AiCE suppresses noise while enhancing signal, resulting in sharp, clear, and distinct images at speed.



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.



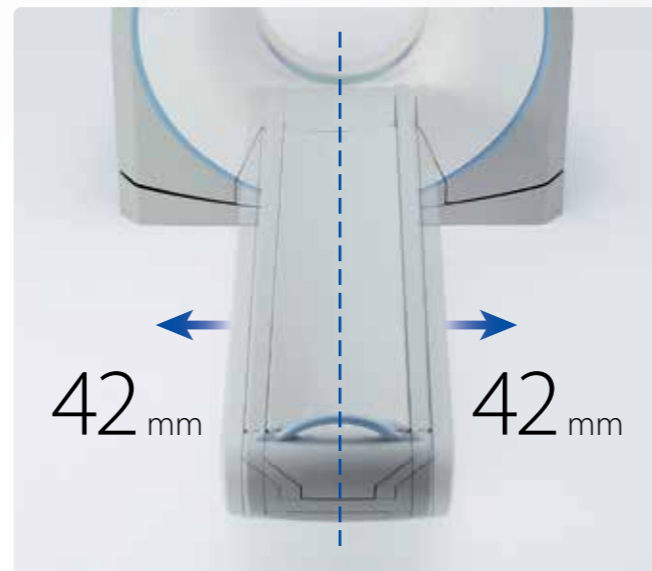
The Station display provides child-friendly exam instructions and gives operators feedback for breath-holding, ECG, scan parameters and patient ID.



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 our 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 ^{SURE}kV automates kV selection based on patient's size and clinical task. As part of our ^{SURE}Exposure technology, this function can help optimize the use of iodine contrast.



Zero-click workflows

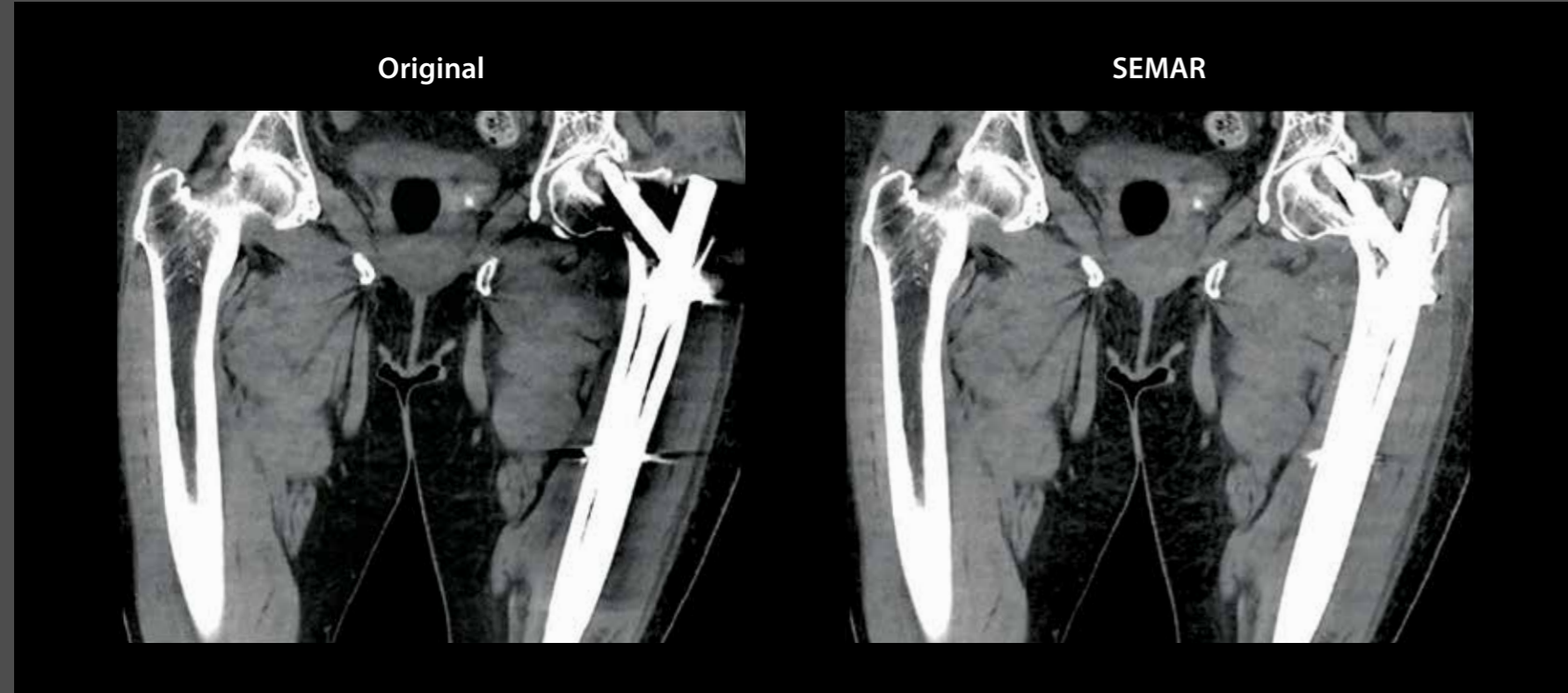
Protocol integrated applications make complex exams easy with robust and reproducible results.

- These include:
- ^{SURE}Subtraction automated bone subtraction
 - Multiview automated MPR and MIP reconstruction
 - AIDR 3D Enhanced reconstruction



Maximum clinical capabilities

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



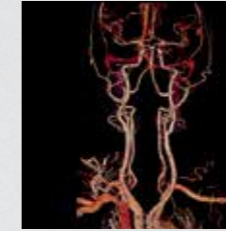
Dose-neutral metal artifact reduction with SEMAR

Our 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

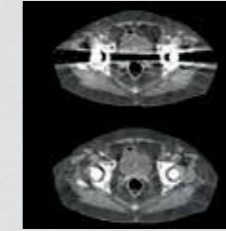


SURESubtraction*



Automated bone and calcium subtraction

SEMAR



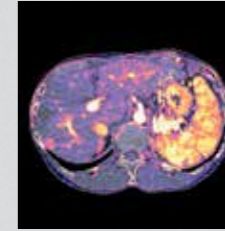
Metal artifact reduction

Dual Energy*



Tissue visualization

Iodine Mapping*



Lesion detection

Variable Helical Pitch (vHP)*



Prospective scanning

SURECardio*

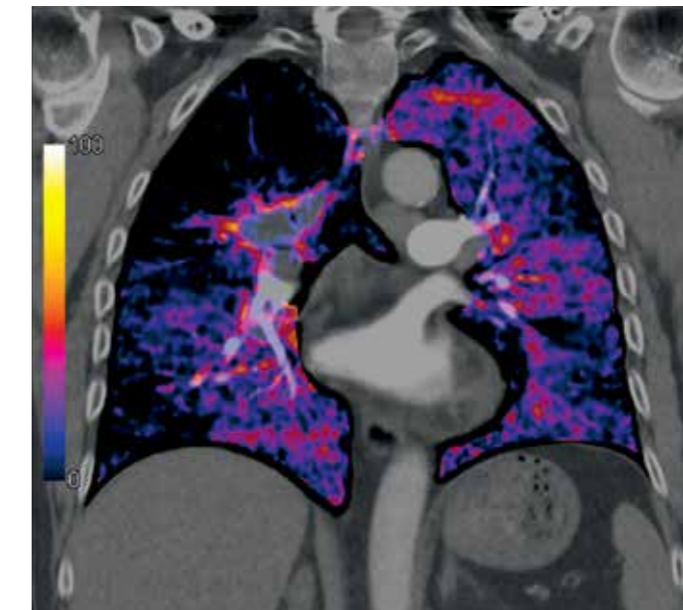


Arrhythmia detection



Subtraction CTA*

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



SURESubtraction Lung*

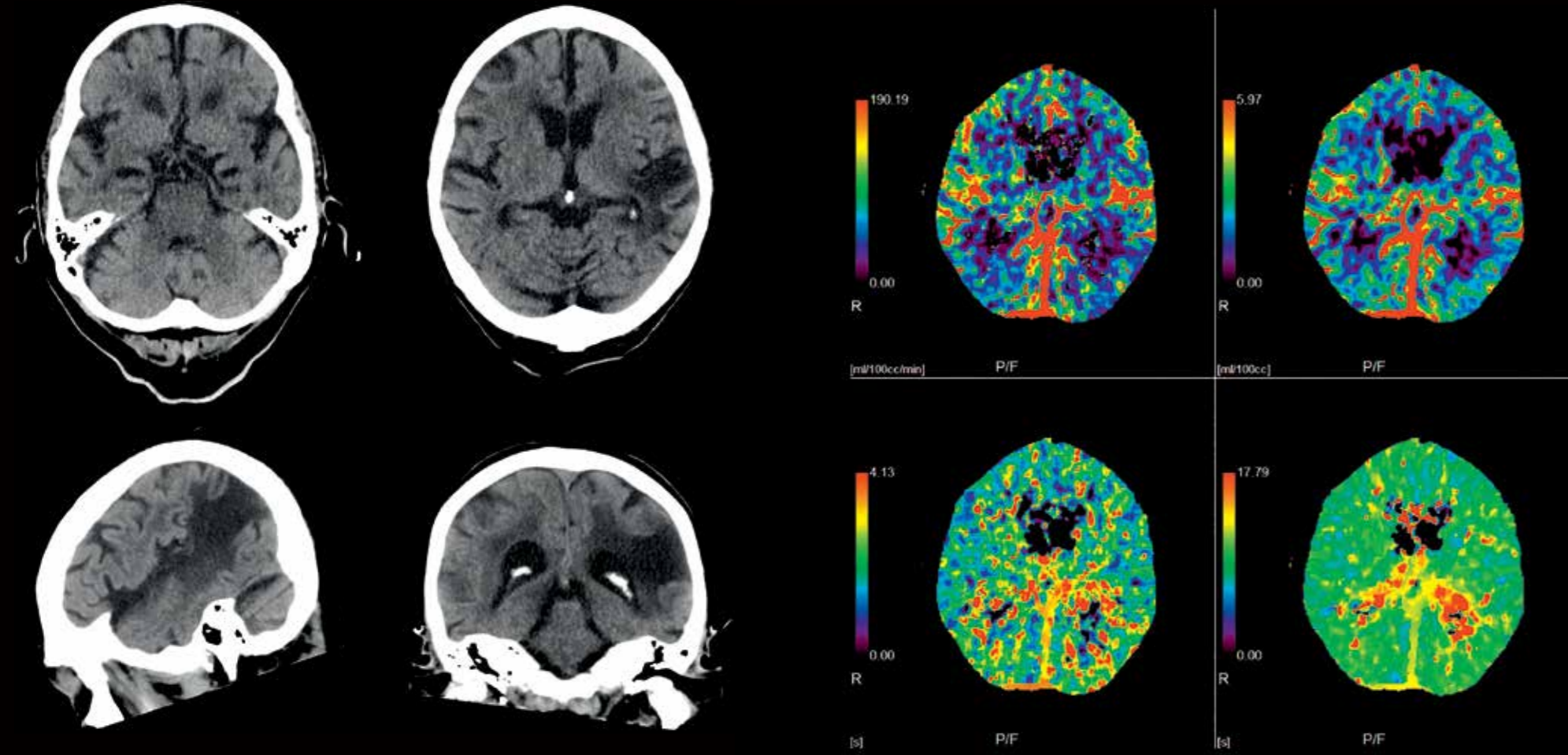
Automated Iodine Maps as a result of advanced registration and SURRESubtraction Lung algorithm.



70 cm extended field of view

Provides a more accurate body outline for off-center imaging, very obese patients or radiotherapy planning.

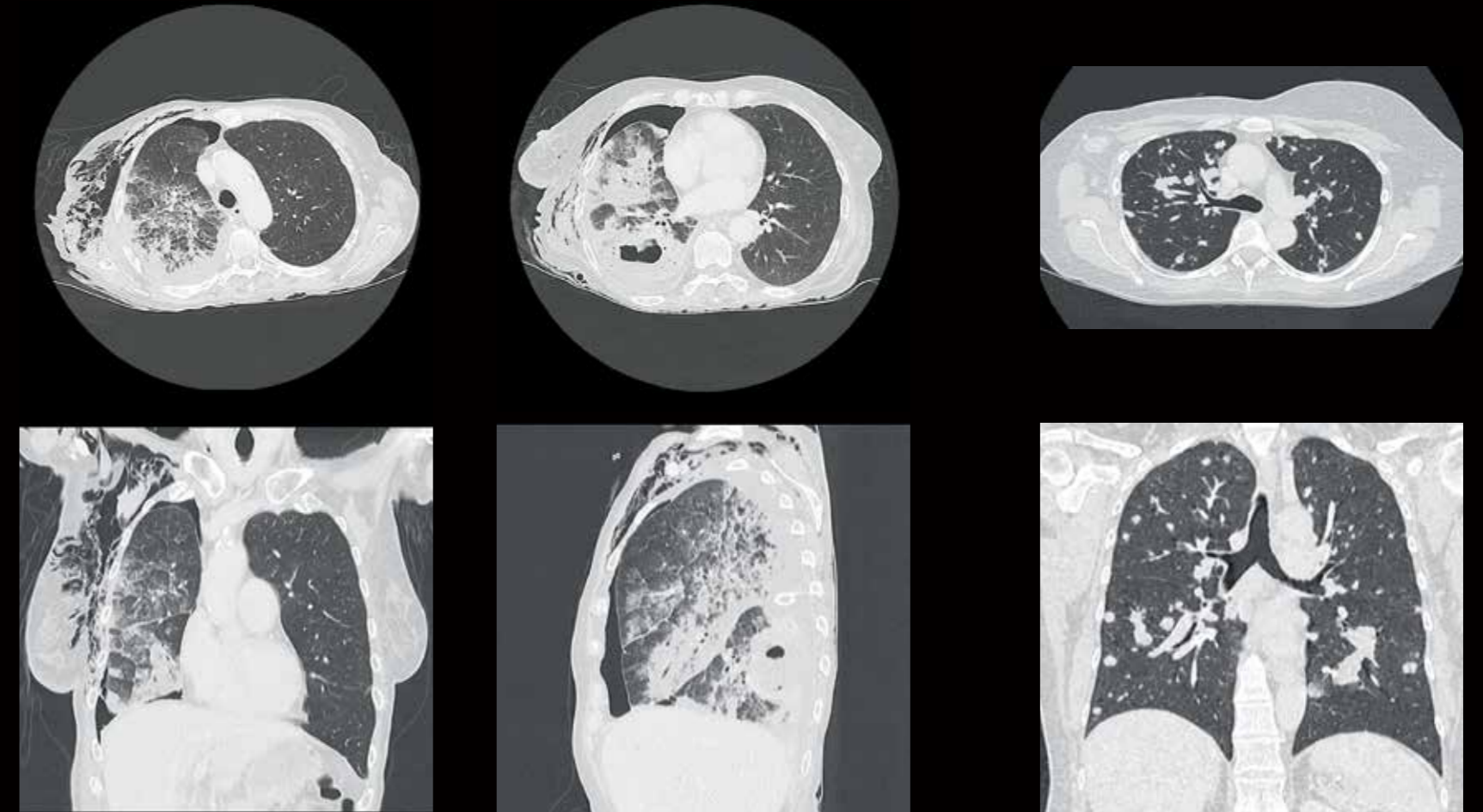
Neuro



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

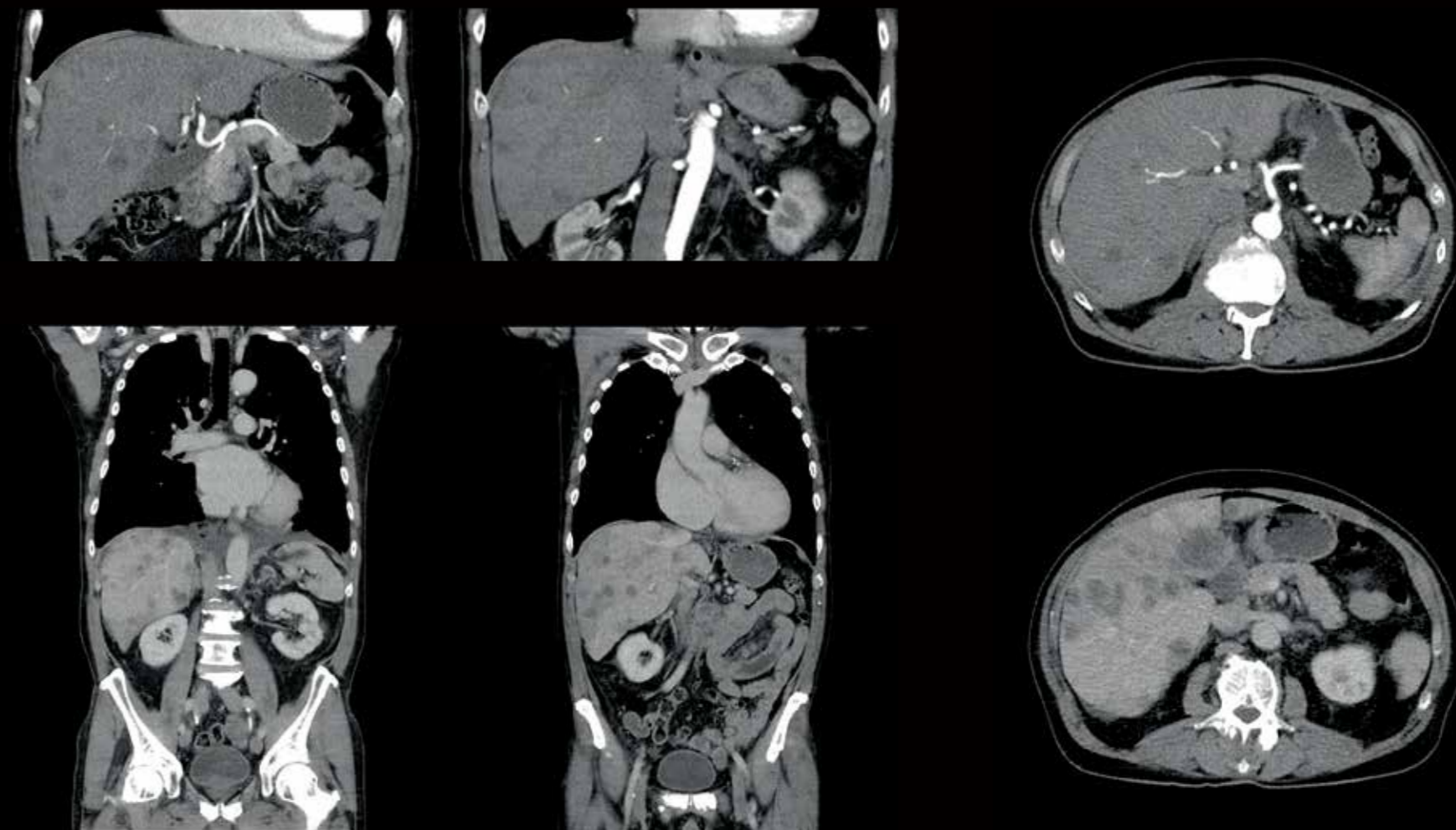
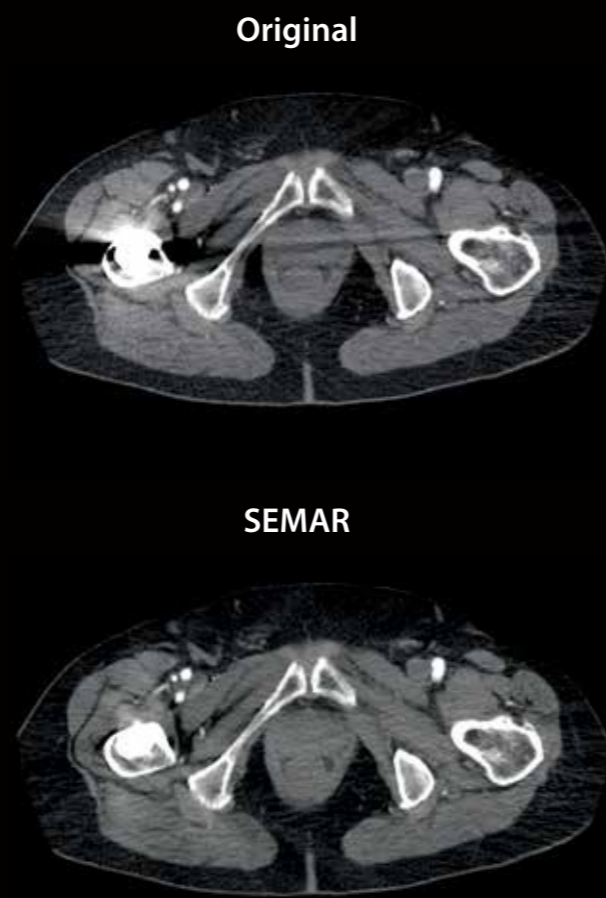
CBP for evaluation of patients with cerebrovascular disease.

Chest



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

Body



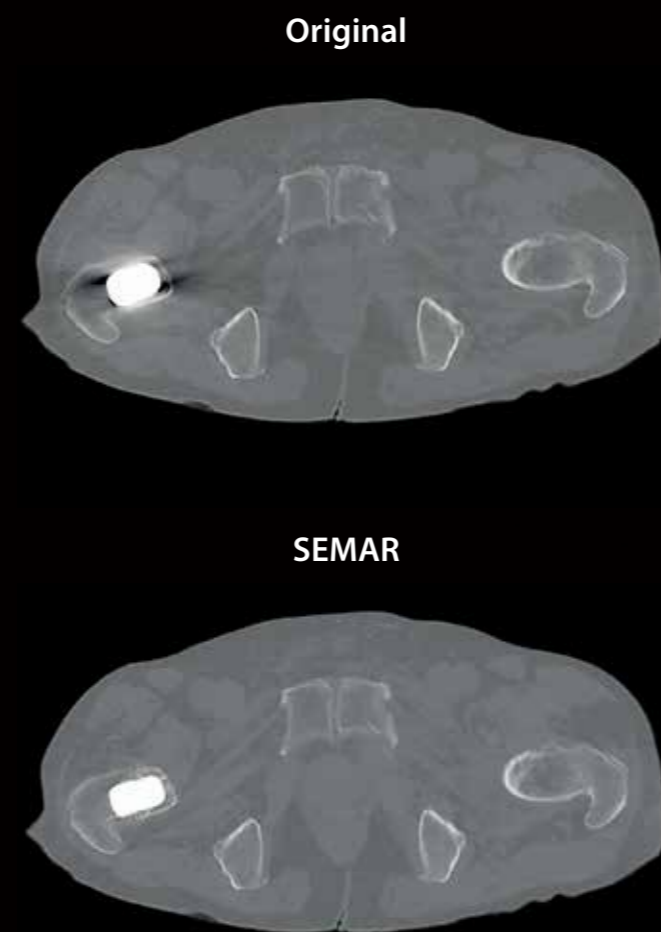
Reduce metal artifacts in all your patients independent of the scan acquisition using SEMAR.

Automated kV selection based on patient's size and clinical task with SUREkV.

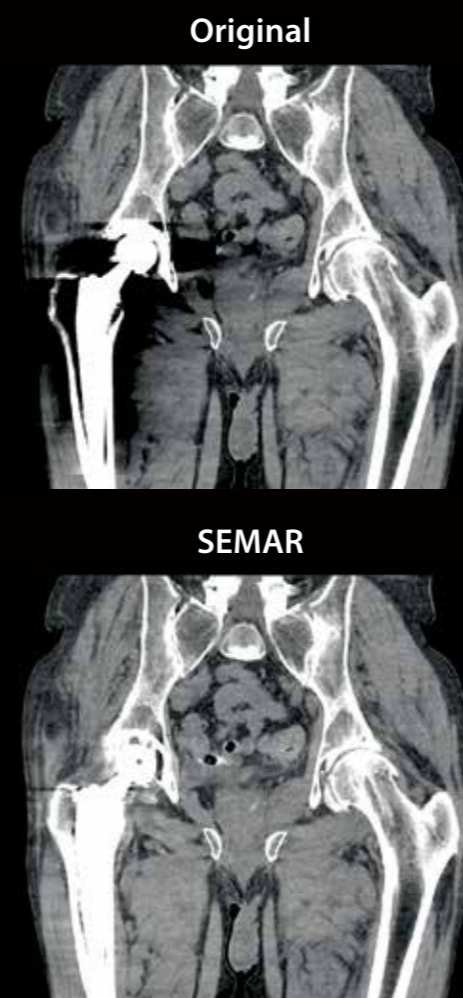
Musculoskeletal



Excellent bone resolution with 0.5 mm ^{PURE}VISION Detector technology.



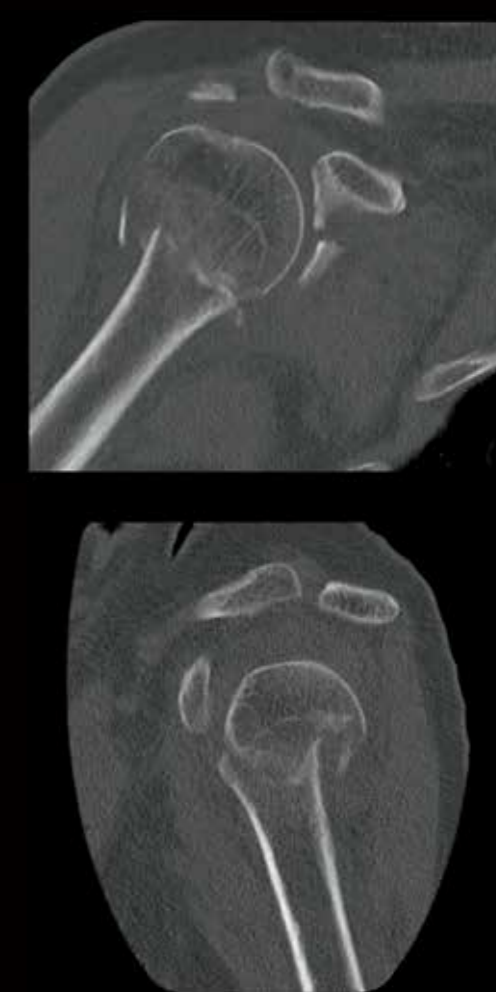
Reduce metal artifacts without an increase in dose with SEMAR.



SEMAR



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





Main specifications

Detector		PUREVISION detector technology
		80 rows of 0.5 mm, 160 slice* ¹
Gantry	Rotation time	0.75 s / 0.6 s* ¹ / 0.5 s* ¹
	Generator	50.4 kW / 112 kW equivalent with ADR 3D
	Bore aperture	78 cm
	Tilt	± 30°
Patient couch	Max. load	220 / 315 kg* ²
	Max. scan range	150-200 cm* ²
Reconstruction speed	Helical	20 fps / 50 fps* ¹ * ³
	Iterative reconstruction	AIDR 3D Enhanced
Reconstruction	Deep learning reconstruction	AiCE
	FOV	500 mm, 700 mm* ¹
Installation	Power capacity	50 kVA, 72 kVA* ¹
	Min. installation space	9.8 m ² (short couch)
Image quality	Spatial resolution	20.0 lp/cm at MTF 0%* ⁴

*¹ With optional coneXact double slice reconstruction
 *² Depending on system configuration
 *³ With AIDR 3D
 *⁴ For reference

Clinical results may vary due to clinical settings, patient preparation and other factors.
 Due to local regulatory processes, some of the products included in the brochure may not be available in each country.
 Please contact your sales representative for the most current information.

Aquilion *Lightning*

Canon

CANON MEDICAL SYSTEMS CORPORATION

<https://global.medical.canon>

©Canon Medical Systems Corporation 2017-2020. All rights reserved.
Design and specifications are subject to change without notice.
Model number: TSX-036A MCACT0302EAB 2020-09 CMSC/D/Printed in Japan

Canon Medical Systems Corporation meets internationally recognized standards for Quality Management System ISO 9001, ISO 13485.
Canon Medical Systems Corporation meets the Environmental Management System standard ISO 14001.

Aquilion Lightning, coneXact, ^{SURE}Exposure, ^{SURE}Subtraction, SEMAR, ^{SURE}Cardio and Made for Life are trademarks of Canon Medical Systems Corporation.

Made For life