

**TOSHIBA
MEDICAL**



PRIME
Aquilion

Adaptive Diagnostics
Clinical Solutions





PRIME *Aquilion*

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AQUILION™ PRIME PROVIDES
CLINICAL FLEXIBILITY,
ENHANCED WORKFLOW FEATURES
AND A PATIENT CENTRIC DESIGN
ALL IN A COMPACT,
POWERFUL CT SCANNER.

The Aquilion PRIME 40-, 80- and 160-slice models leverage Toshiba Medical's innovative technologies developed for the Aquilion ONE™ 320-detector row system to deliver advanced iterative reconstruction and Ultra Helical data acquisition in routine clinical practice.





Adaptive Diagnostics

Minimum Space

Integrated Dose Reduction

Streamlined Workflow





Adaptive Diagnostics

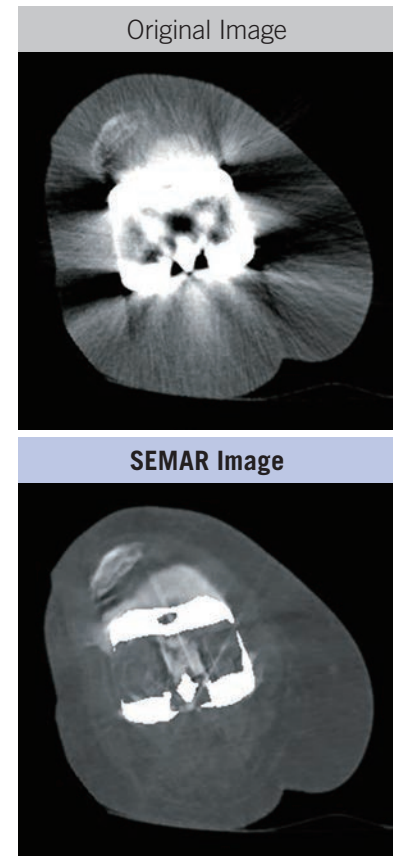
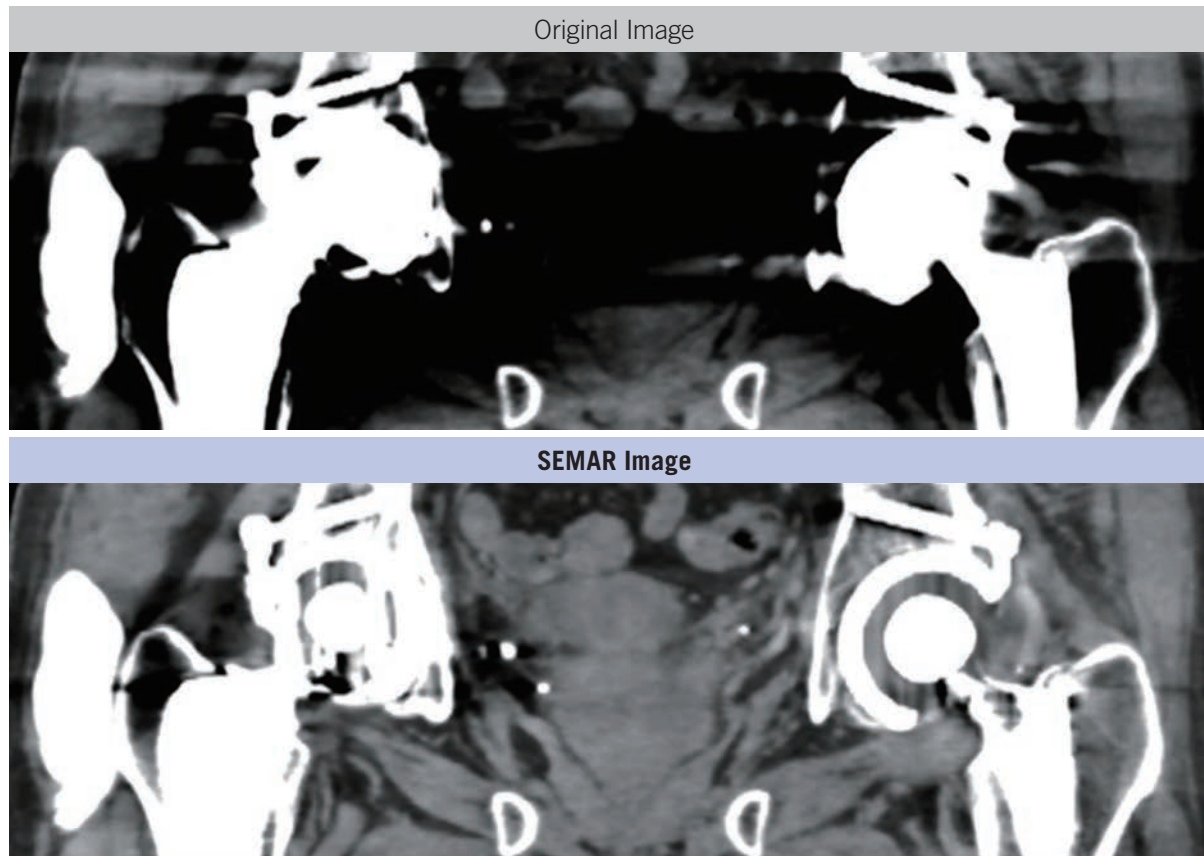
Variable Helical Pitch*, ^{SURE}Subtraction™* and ^{SURE}Cardio™ Prospective* are Toshiba Medical's unique Adaptive Diagnostic scan modes that simplify complex protocols and provide consistent quality results.

* Optional



Single Energy Metal Artifact Reduction

Toshiba Medical's SEMAR™ (Single Energy Metal Artifact Reduction) utilizes a sophisticated reconstruction technique to reduce metallic artifact, improving visualization of implants, supporting bone and the adjacent soft tissues. SEMAR can be set in the scan protocol so the reconstructions are fully automatic, requiring no additional operator input.



vHP

Variable Helical Pitch (vHP) permits the table speed (pitch) to be seamlessly changed during a continuous acquisition. vHP allows a combination of gated and non-gated acquisitions in a single scan, which is an advantage in examinations such as the evaluation of aortic dissection and TAVR planning.

Selective gating of only the required segments can reduce radiation dose.

vHP demonstrates how Adaptive Diagnostics can provide solutions in challenging clinical scenarios, resulting in more efficient workflow for all medical staff.





before



after

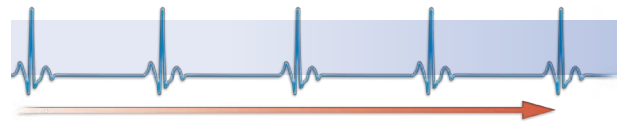
SURE^{Subtraction}

With pixel-perfect subtraction of bone and calcium, SURE^{Subtraction} software provides visualization of vessels and contrast-enhanced tissue structures.

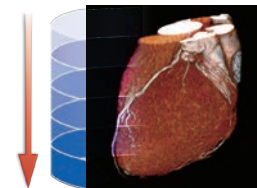
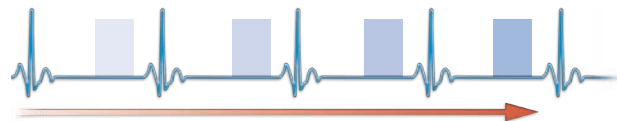
SURE^{Cardio} Prospective* — Overcome the Unexpected

Aquilion PRIME performs coronary angiography using a prospectively triggered helical technique. This ensures uniformity in the z-axis compared to step-and-shoot techniques and shorter scan times. SURE^{Cardio} Prospective includes Toshiba Medical's proprietary arrhythmia rejection software, which recognizes irregular heart rhythms and controls scan exposure accordingly.

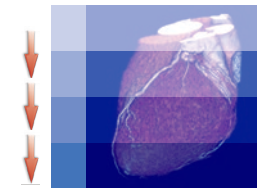
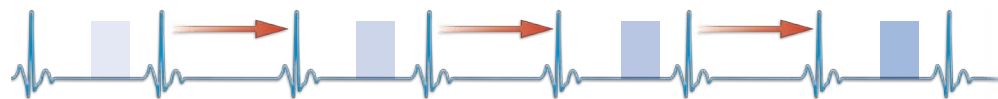
ECG-Gated Helical Scanning



SURE^{Cardio} Prospective



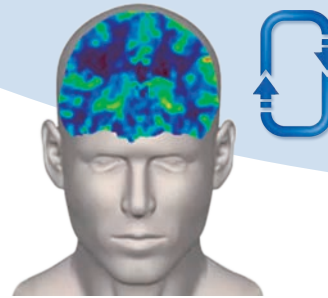
Step & Shoot Approach



* Optional

Shuttle Helical*

Toshiba Medical's Shuttle Helical offers a unique combination of helical and volume acquisition techniques. This combination eliminates the need for over-ranging associated with conventional helical shuttle techniques.



* Optional

Dual Energy*

Helical Dual Energy scans use two energies during one CT scan, providing clinicians with more data.

Aquilion PRIME performs Dual Energy analysis through a unique organ-modulated kV-switching technique synchronized with tube current modulation.

* Optional

3D CT Fluoroscopy*

Volumetric 3D and 2D real-time CT fluoroscopy permit difficult interventional procedures to be performed with greater ease and improved safety for you and your patients.

3D CT Fluoro features real-time display to monitor needle placement as it happens, a suite of dedicated biopsy planning tools, and oblique and double oblique needle tracking in 3D fluoroscopy mode.

With integrated AIDR 3D (Adaptive Iterative Dose Reduction 3D), CT interventions can be achieved at low radiation dose.







Integrated Dose Reduction

Toshiba Medical's dose-saving technologies are fully integrated into the scan sequence, taking the guesswork out of optimizing patient dose.

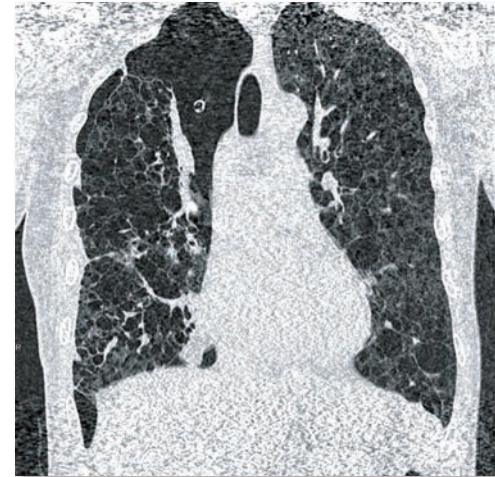
Integrated Dose Reduction — That Works

- Iterative reconstruction

- Noise reduction

- **AIDR 3D**

- Noise reduction
- Protocol integration
- Prospective mA reduction
- Ease of use
- Assured image quality
- Reconstruction speed of up to 60 images per second (ips)
- Applicable to every scan

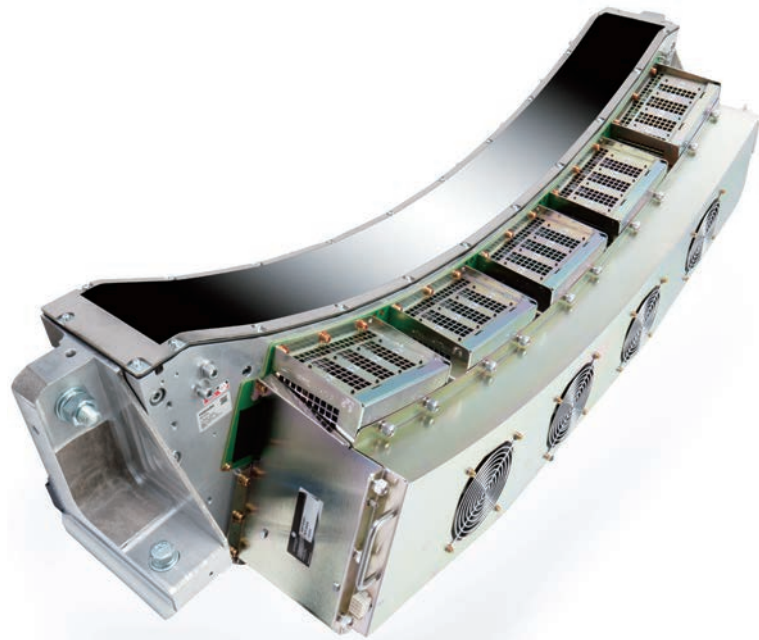


without AIDR 3D



with AIDR 3D

Toshiba Medical's AIDR 3D is fully integrated into the automatic exposure control software, taking the guesswork out of optimizing patient dose. ALARA is automatically achieved for each and every patient without compromising image quality or workflow.



PUREVISION Detector

- More efficient use of X-rays
- 0.5 mm slice resolution
- 40% better light output
- Maximizing Toshiba Medical's ceramics expertise with a detector cut from a solid ingot using microblade cutting technology to minimize imperfections and maximize quantum efficiency available and still the only detector featuring true 0.5 mm resolution.





Streamlined Workflow

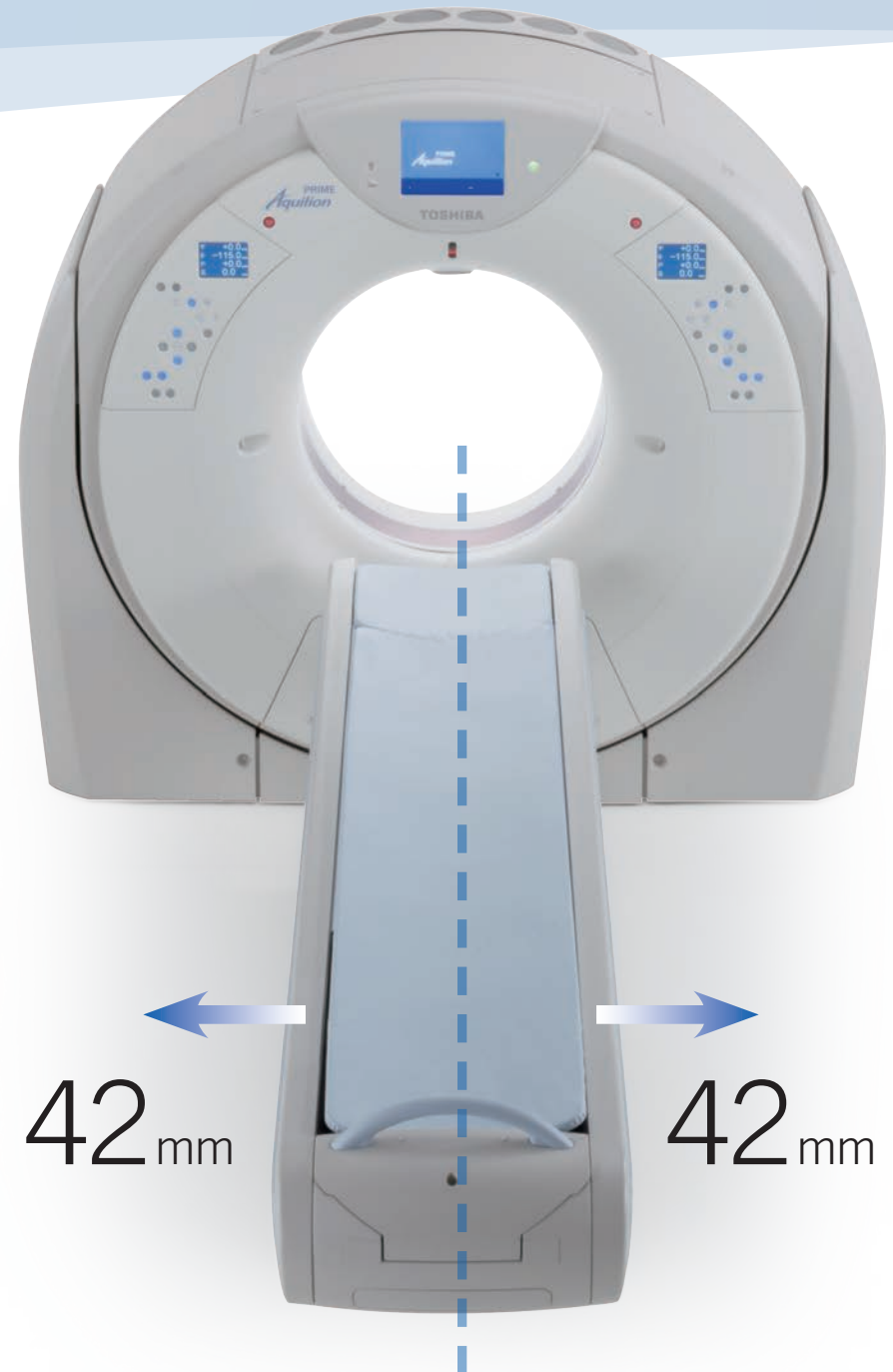
Streamlined workflow from patient positioning to procedure.

Evolution Gantry Design

The Aquilion PRIME Evolution Gantry features design innovations to improve the scanning experience for patients as well as operability and safety for you.

Tech Assist Lateral Slide*, another Toshiba Medical first, allows you to position patients with ease, helping to reduce physical strain.

The wide 78 cm open bore and 47 cm wide couch ensure comfortable scanning for large patients. This design also provides physicians with superior patient access during interventional procedures.



* Optional

“ At Fairview Southdale Hospital, I am part of the Safe Patient Handling Committee, and we look for ways of eliminating employee injury and keeping our patients safe. The new technology from Toshiba Medical, Tech Assist Lateral Slide, has helped our employees by not having to move patients as much. Now they can just move the table, and it’s much more comfortable for the patient. ”

Judy Sager

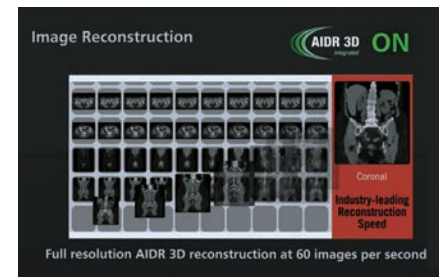
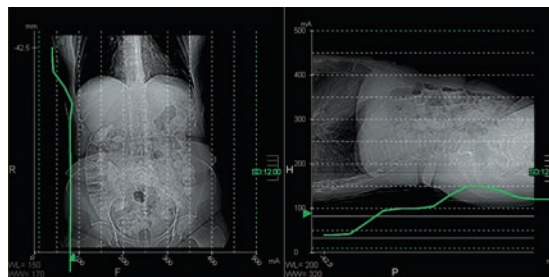
Director of Imaging, Fairview Southdale Hospital,
Minnesota, USA





Streamlined Workflow

- Fast and safe patient positioning with Tech Assist Lateral Slide
- Real-time dual scanogram
- Scan plan
- Scan start
- InstaView™ instantaneous image reconstruction and review
- Simultaneous full resolution image reconstruction up to 60 images per second with AIDR 3D

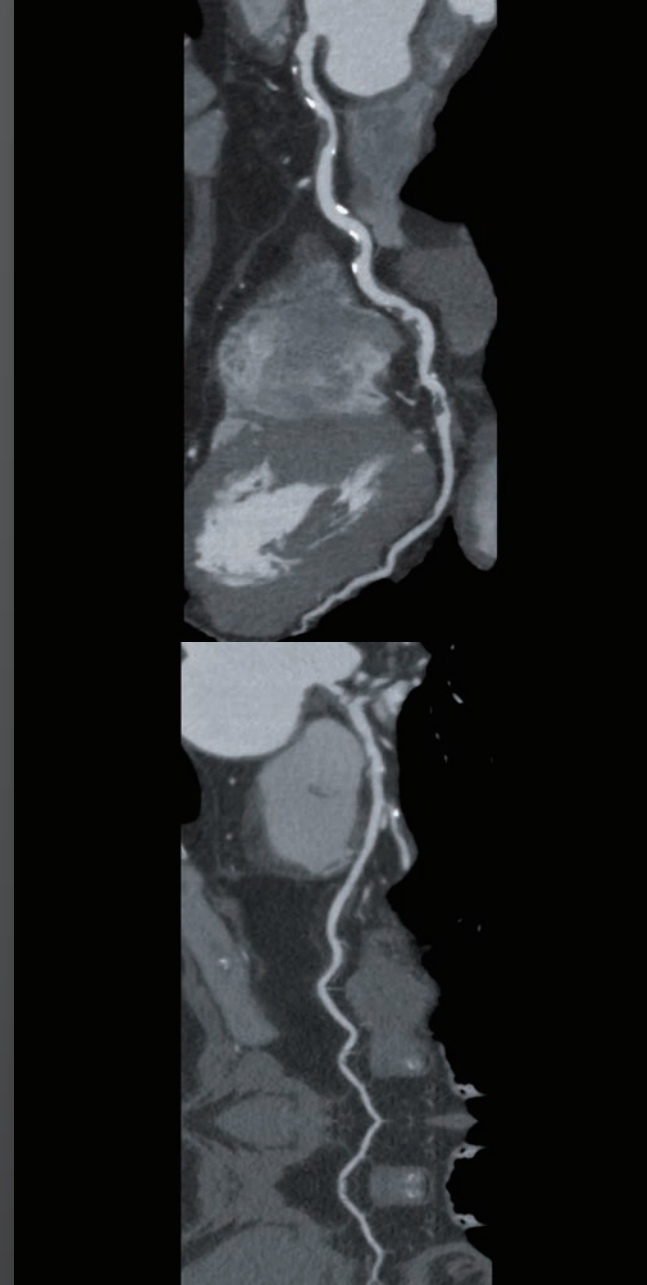
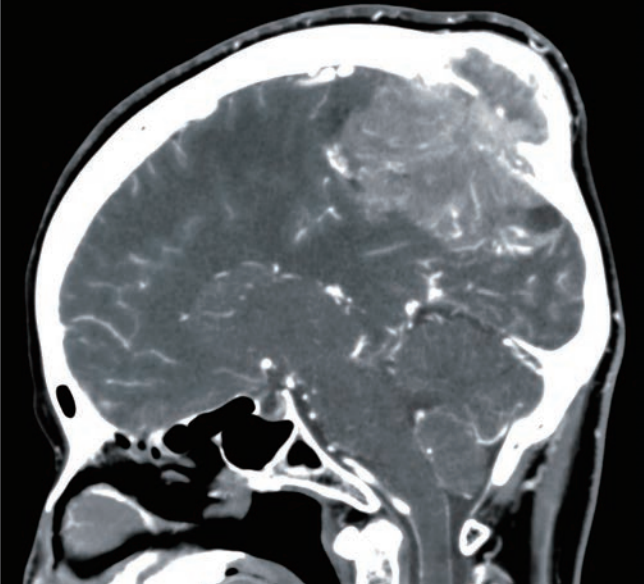
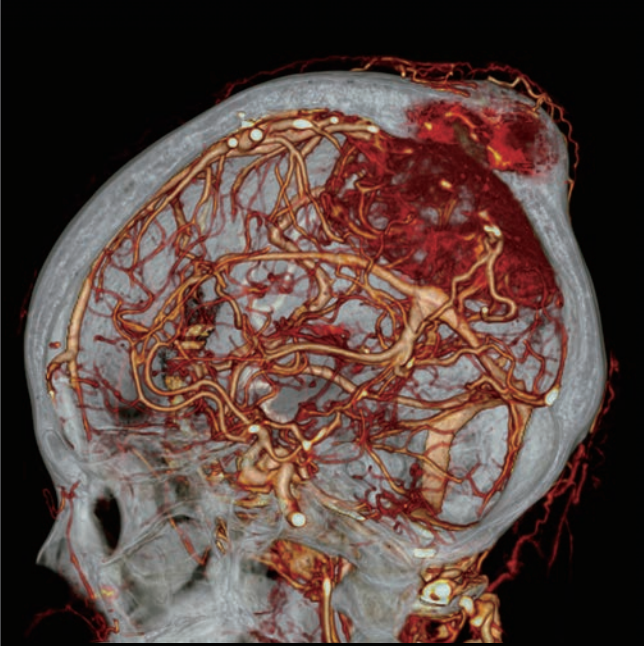


80 Detector Row Ultra Helical — With Gantry Tilt

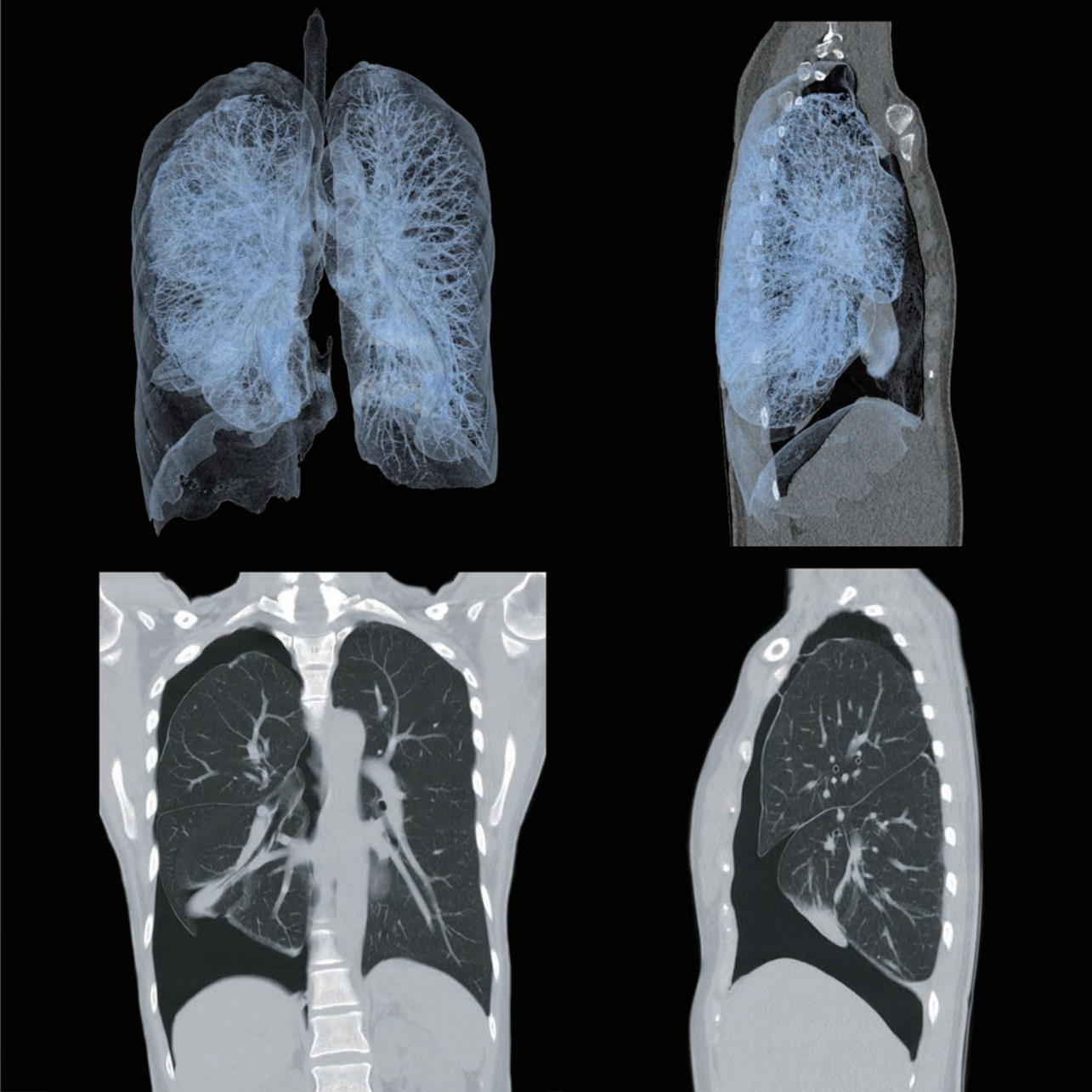
Aquilion PRIME 80 detector row helical acquisition allows a full ± 30 degrees of gantry tilt for helical acquisition, which assists in patient positioning and minimizes dose to radiosensitive organs such as the eyes.

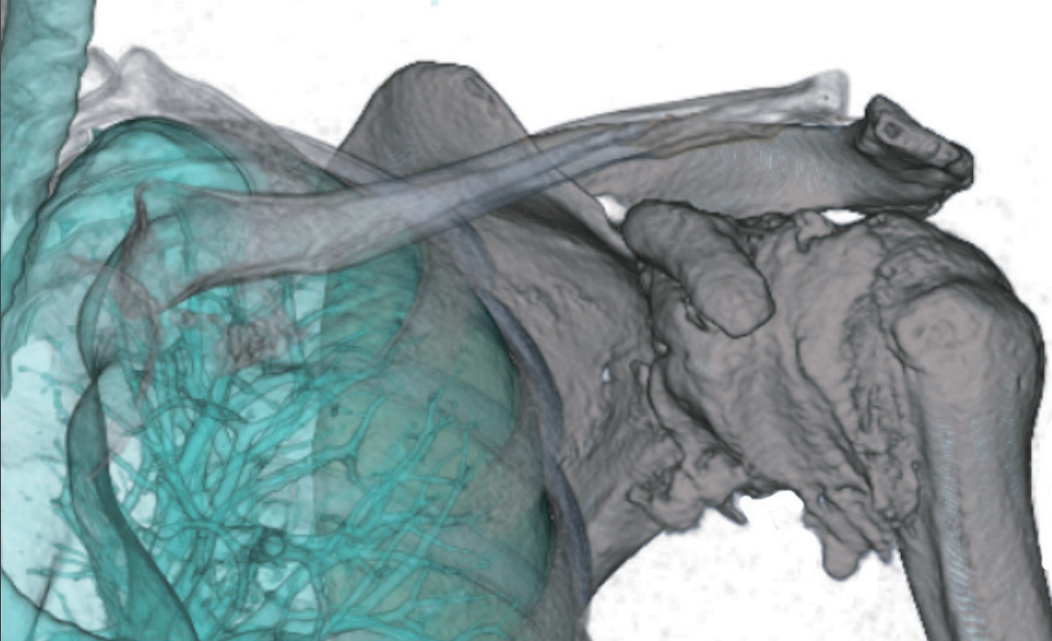
Toshiba Medical's unique Double Slice technology provides 160 slices per rotation with no dose penalty.













Clinical Flexibility,
Comfort and Workflow



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 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. Due to local regulatory processes, this product may not be available in each country. Please contact your local Toshiba sales representative for the most current information.

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Made For life