



## **High-Performance Versatility**



## Clinical performance that's optimized and right-sized

In a healthcare environment that increasingly requires doing more with less, Canon Medical Systems' Aquilion™ Large Bore CT system delivers. Accomplishing the need to image patients faster, safer and more comfortably while optimizing workflow and system utilization in more ways than ever.

#### **EXPANDING PATIENT ACCESS AND APPLICATIONS**

Starting with the industry's biggest and widest bore and advanced dose reduction technology – coupled with its highest capacity couch – Aquilion LB easily accommodates the widest range of patients. Add today's thinnest slices and largest field-of-view (FOV), and the Aquilion LB offers the perfect combination of image quality and patient safety for oncology planning, bariatric imaging and low-dose CT interventions.



# Oncology planning with greater precision.

Aquilion LB makes it easy to marry radiation therapy with CT simulation positioning. Every time, for every patient, without compromise.



#### MORE POSITIONS, MORE POSSIBILITIES

Aquilion LB is the only system that combines the largest bore and true FOV to cover more anatomy with greater accuracy.

- 90 cm gantry bore opening allows uncompromised patient positioning
- 70 cm acquired FOV achieves 40% more diagnostic coverage
- 85 cm\* extended FOV

#### **LEAP INTO THE NEXT DIMENSION**

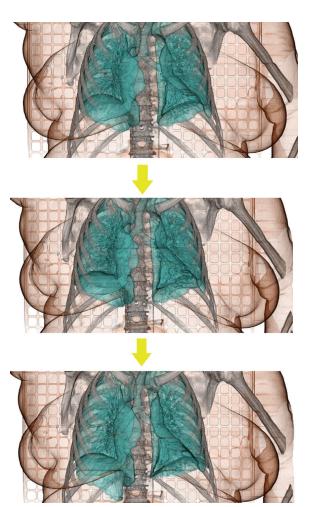
The Aquilion LB system supports state-of-the-art oncology applications, including 4D respiratory-gated CT simulation for advanced motion management and radiation therapy planning.

- Acquire prospective respiratory gated images
- Enable retrospective gating with 4D acquisition mode
- Image tumor volume in the correct dimension
- Increase tracking accuracy and reproducibility of tumor volume
- Phase average reconstruction provides range of motion tracking in a single image





The 90 cm bore provides maximum positioning flexibility for unrestricted CT simulation.



Three phases of a multiphase 4D acquisition.

<sup>\*</sup>Optional.

## Maximize your patient potential.

Obesity in the U.S. has steadily increased over the past 20 years with roughly 36% of all adults and 17% of all children and adolescents aged 2-19 currently in this category.\* Increasing access while improving patient comfort, compliance and convenience, Aquilion LB incorporates ergonomic features specifically designed to accommodate this burgeoning patient population.

#### **LARGEST GANTRY APERTURE**

The industry's widest 90 cm gantry bore provides exceptional access and more comfortable positioning for bariatric patients.

### HIGHEST WEIGHT CAPACITY SUPPORTS MORE PATIENTS

A first-of-its kind table with 660 lb.\*\* weight capacity makes it possible to scan a larger patient population.

## IMPROVED PATIENT SAFETY AND ACCESS

The ability to lower table height to 31.2 cm above the floor facilitates easy access for bariatric and other patients with physical limitations.

#### TAKING YOUR TECHNOLOGY FURTHER

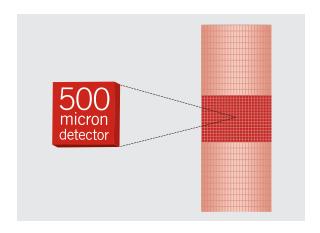
Aquilion LB delivers Canon Medical Systems' advanced CT technology in a robust system configuration that delivers the highest quality images at the lower doses. And increases confidence in clinical decision making for the widest range of patients.

#### **DOUBLE SLICE WITH CONEXACT™**

Canon Medical Systems' unique Double Slice technology with coneXact reconstruction allows the Aquilion LB to double the number of slices to 32 per detector-row-acquisition without increasing radiation delivered to the patient.

### GREATER IMAGE RESOLUTION WHEN YOU NEED IT MOST

Offering the ideal combination of low-contrast and spatial resolution, Canon Medical Systems' exclusive Quantum<sup>PLUS</sup> detector provides thin slice imaging at 0.5 mm with a 350-micron spatial and low-contrast resolution of 2 mm at 3%.



<sup>\*</sup>Source: www.ced.gov/obesity/data/facts.html

<sup>\*\*</sup>Optional.

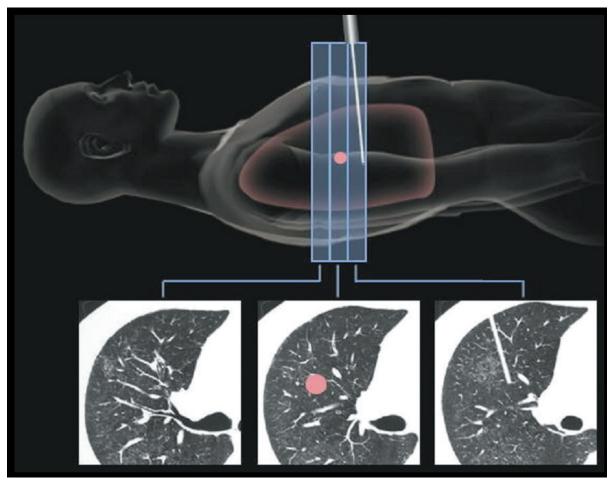


## Optimizing your interventional capabilities.

Expanding on over a decade of experience in real-time image display, the Aquilion LB combines three-frame real-time CT Fluoro with a spacious gantry opening to take interventional radiology to the next level.

#### **SURE FLUORO™: REAL-TIME MULTI-SLICE CT**

Utilizing three contiguous slices for real-time monitoring during interventions with image viewing at up to 12 frames-per-second, <sup>SURE</sup>Fluoro increases accuracy by enabling more precise positioning and control while enhancing patient safety with shorter procedures and decreased biopsy times.



SUREFluoro multi-slice CT fluoroscopy displays real-time images above, at and below the lesion.



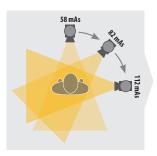
## Lowering exposure for every patient and procedure.

Aquilion LB systems feature advanced dose reduction and image-processing software. Developed based on Canon Medical Systems' long-standing commitment to improving patient safety, these features ensure delivery of the best possible image quality at lower doses and reinforce Canon Medical Systems' guiding principle of ALARA for every patient.

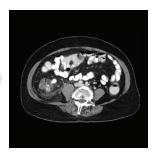
#### INTEGRATED, AUTOMATED AND ADAPTIVE DOSE MANAGEMENT

To achieve the highest quality images at lower doses, the Aquilion LB implements an array of adaptive and integrated dose reduction strategies at every stage in the scanning process, from patient registration through data acquisition, raw data and image reconstruction.









#### **PATIENT REGISTRATION**

- The system prompts the user to select the appropriate protocol based on patient age, weight and exam type
- Aquilion LB meets the requirements of the National Electrical Manufacturers Association (NEMA) XR-29 Dose Check requiring dose notification and alert features

#### **IMAGE ACQUISITION**

- Integrated <sup>SURE</sup>Exposure™ 3D mA modulation is scanogram-based to automatically reduce patient dose
- Dose is displayed on the console prior to scanning for operator confirmation and validation

### RAW DATA AND IMAGE RECONSTRUCTION

 Adaptive Iterative Dose Reduction 3D (AIDR 3D) adaptively targets noise in the raw and image data space and is used to automatically lower patient dose while maintaining spatial resolution and image texture\*



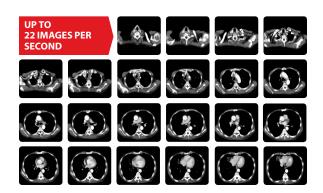
<sup>\*</sup>In clinical practice, use of the AIDR feature may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice.

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.

#### **NEW CONSOLE ARCHITECTURE**

From performing exams to distributing data, Aquilion LB accelerates the process of providing the information you need to make the best treatment decisions.

With a reconstruction of up to 22 images per second, 0.5 mm images are available almost immediately after acquisition.



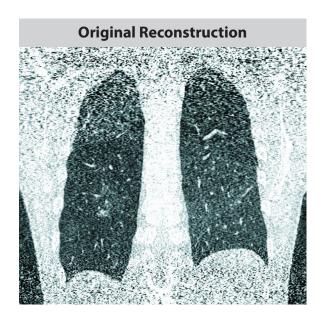
#### **Personalized Dose Management**

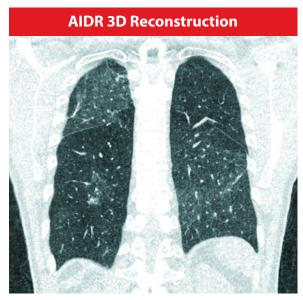
#### AIDR 3D

AIDR 3D is the latest evolution of iterative reconstruction technology that has been fully integrated into the imaging chain to ensure automatic dose reduction for all patients.

#### **ACCELERATED WORKFLOW**

Dose reduction technologies must function rapidly to synchronize with busy workflow schedules, and AIDR 3D has been optimized to reconstruct images with speeds that allow the algorithm to be used for any clinical situation.





#### **TECHNOLOGY HISTORY**

For over 130 years, Canon Medical Systems has been a world leader in developing technology to improve the quality of life. Our 50,000 global patents demonstrate a long, rich history of leading innovation. It might surprise you to learn about some of the things we've invented.

| <b>1915</b> First X-ray tube                 | 1993 First real-time CT fluoro               | 2007 First dynamic volume CT scanner                         |
|--|--|--|
| <b>1954</b> First digital computer           | <b>1995</b> First DVD                        | 2009 First 160 Helical                                       |
| <b>1978</b> First cardiac ultrasound scanner | 1998 First quiet MRI                         | 2010 First iterative recon technique for 320-detector row CT |
| <b>1985</b> First slip-ring CT scanner       | <b>1999</b> First 0.5 mm multidetector CT    | 2011 First 80-detector row CT scanner                        |
| <b>1986</b> First laptop computer            | 2002 First 400 ms CT scanner                 | 2012 Adaptive Iterative Dose Reduction 3D (AIDR 3D)          |
| <b>1989</b> First helical CT scanner         | <b>2004</b> First Quantum Denoising Software |  |

#### AWARD-WINNING SERVICE AND SUPPORT

Developed with customer input, Canon Medical Systems' innovative support programs have resulted in greater satisfaction when using Aquilion products as reflected in customer surveys time after time.

#### InTouch Center™

A centralized service facility that provides applications and service support expertise for Aquilion customers 24 hours a day, seven days a week.

#### InnerVision® Plus

Monitored around the clock, remote system diagnostics help identify problems and provide potential solutions before care is interrupted or an engineer can arrive.

#### **InTouch Agreements**

Tailored to meet specific customer requirements, these range from an a la carte approach that helps manage risk to full security agreements that provide complete system protection.

#### **Technical Assistance**

Customer support specialists are available 24/7 to identify and resolve technical issues in real time. Application specialists are also on hand to assist staff with protocol and image quality issues.

#### **Local Customer Teams**

A single call mobilizes a local team of Canon Medical Systems Customer Engineers. Averaging 10 years of experience with Canon Medical Systems and 105 hours of specialized training per year, they can quickly resolve almost any performance issue.

#### **Parts Support**

A complete inventory of Aguilion product parts is ready for shipment when and where they're needed, any time day or night.

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Made For life