Canon

Vantage Fortian

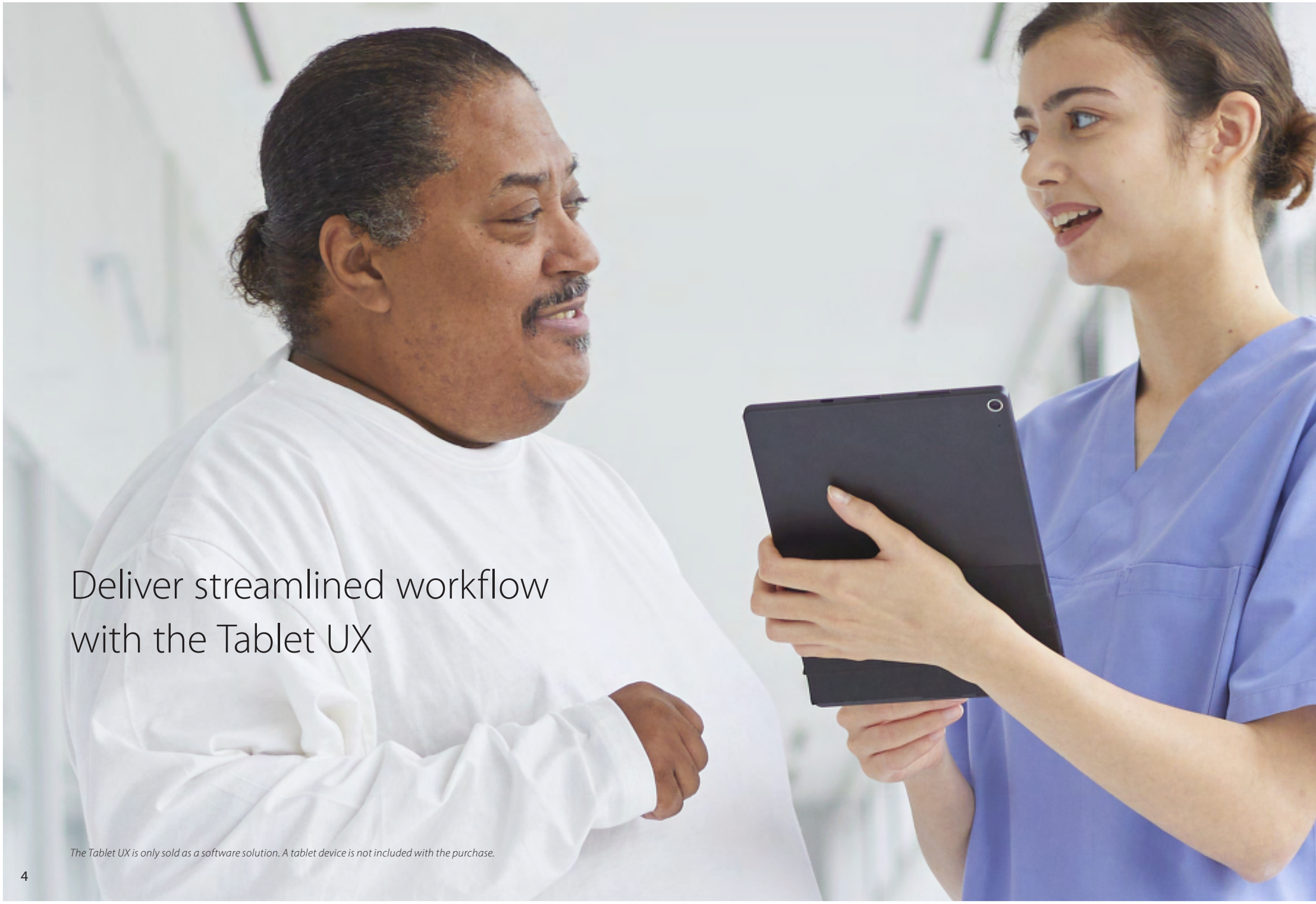
Advanced Productivity

Advanced Productivity with Vantage Fortian

Your work is our inspiration. We listen carefully to your needs and strive to provide innovative and highly effective solutions. Now, more than ever, radiologists and technologists face continually increasing case-loads and the effects of cost pressure on the healthcare system. Our solution is the Vantage Fortian – specially developed to answer the emerging needs of MRI specialists. Extend the capabilities of your MRI team through enhanced productivity provided by redefined workflow solutions that are focused on saving time. Experience advanced MRI productivity that integrates seamlessly into your facility.

Let's move!

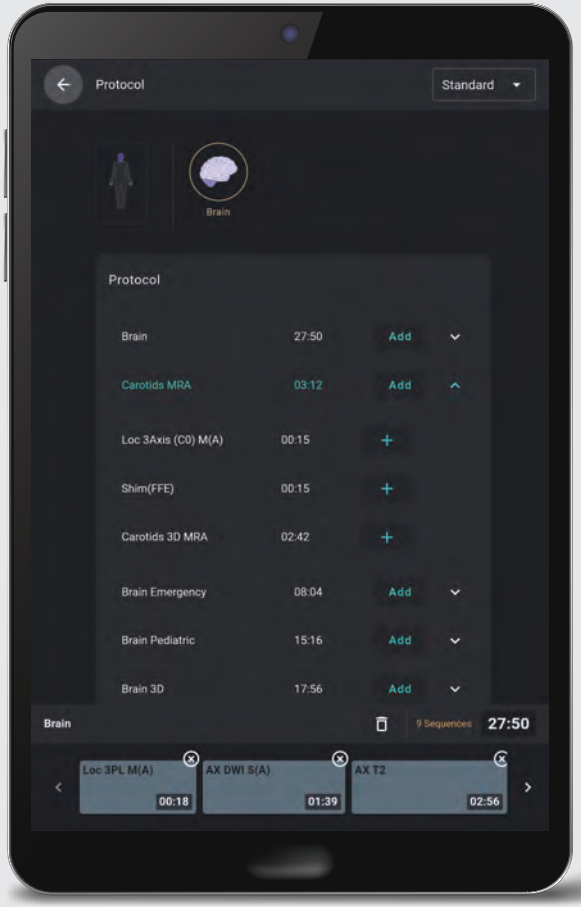
Vantage Fortian



Deliver streamlined workflow with the Tablet UX

The Tablet UX is only sold as a software solution. A tablet device is not included with the purchase.

Productivity at your fingertips



Remote scan monitoring

Real-time monitoring of examination progress and acquired images on the tablet

Prioritize workflow and organizational efficiency

Access to:

- Patient worklist
- Protocol management
- Study management
- Patient identity
- Exam monitoring
- Image Auto View
- Customizable menus

Automated Landmark Setting

Displayed at the imaging site selected by Protocol Anatomical Selection (PAS) imaging center line is determined from the PAS reserved on the tablet or the PAS registered on the console.

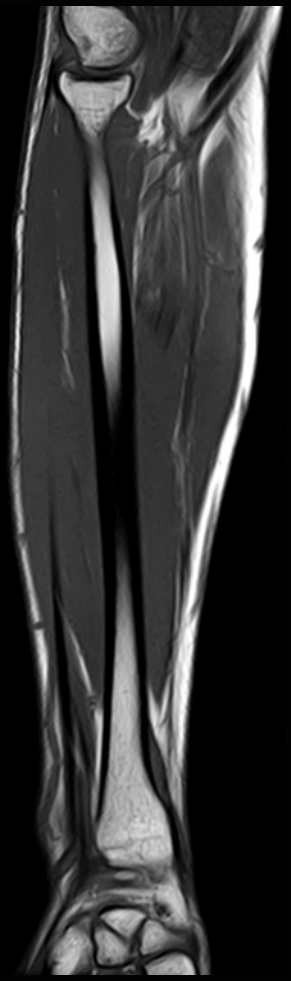
Optimize efficiency with Ceiling Camera and Intelligent Monitor

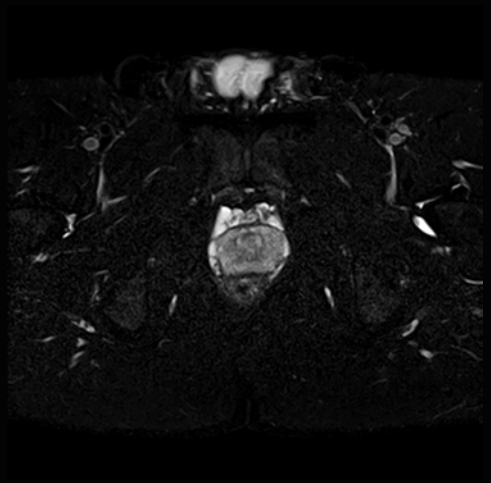
Ceiling Camera

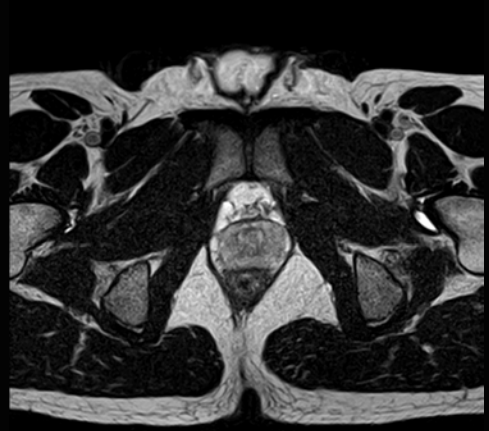
Our Ceiling Camera solution transmits key information to be displayed on the Intelligent Monitor, confirms coil set-up and assists patient positioning.

Reach a new comfort zone with the Shape Coil

Canon's Shape Coil offers a versatile and flexible coil option that provides new configuration choices for different body shapes and difficult anatomy to help improve the patient experience.







Auto Scan Assist

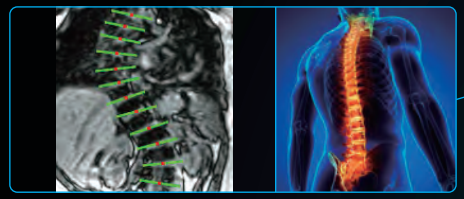
Auto Scan Assist standardizes your workflow with automated slice alignment for a range of exams including liver, prostate and whole spine. Utilizing Deep Learning* and Machine Learning** based automatic recognition, productivity is advanced to enhance procedural efficiency.

* Deep Learning is applicable to SUREVOI Liver.

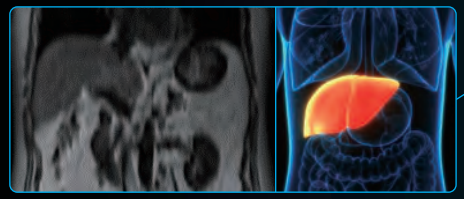
** Machine Learning is applicable to ProstateLine+, LiverLine+, W-SpineLine+, and SpineLine+ applications.

powered by **Altivity**

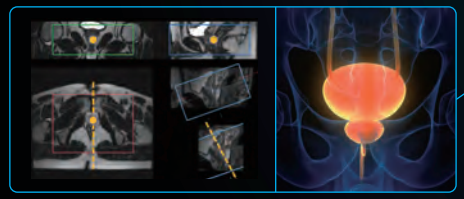
W-SpineLine+



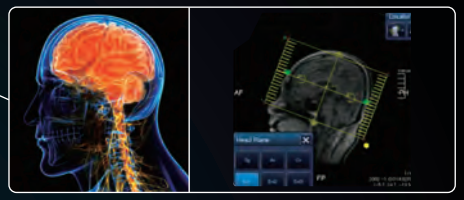
LiverLine+ and SUREVOI Liver



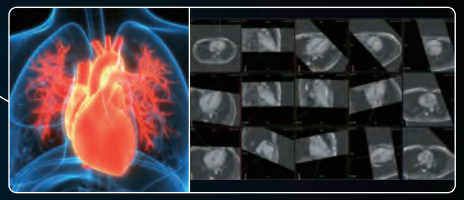
ProstateLine+



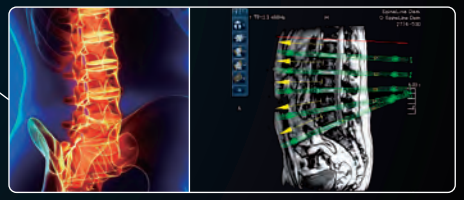
NeuroLine+



CardioLine+ and SUREVOI Cardiac



SpineLine+



KneeLine+ and SUREVOI Knee

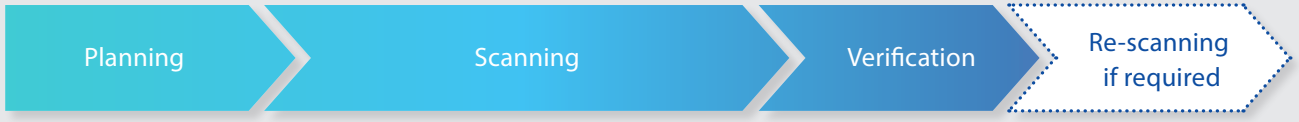
Auto Scan Assist AI technology is trained in the factory. It does not continue to learn once installed at the facility.

Productivity focused technology for prioritizing workflow and image consistency

ForeSee View

ForeSee View is an essential scan planning tool allowing you to preview slice planning in real time to help avoid time consuming re-scans. Enabling planning from edge to edge in the region you wish to image, ForeSee View is particularly useful in anatomies that can be difficult to plan such as the pancreas, the heart, orthopedic joints, tortuous vessels and ligaments, and complex post-surgery vessels and arteries.

Normal



ForeSee View

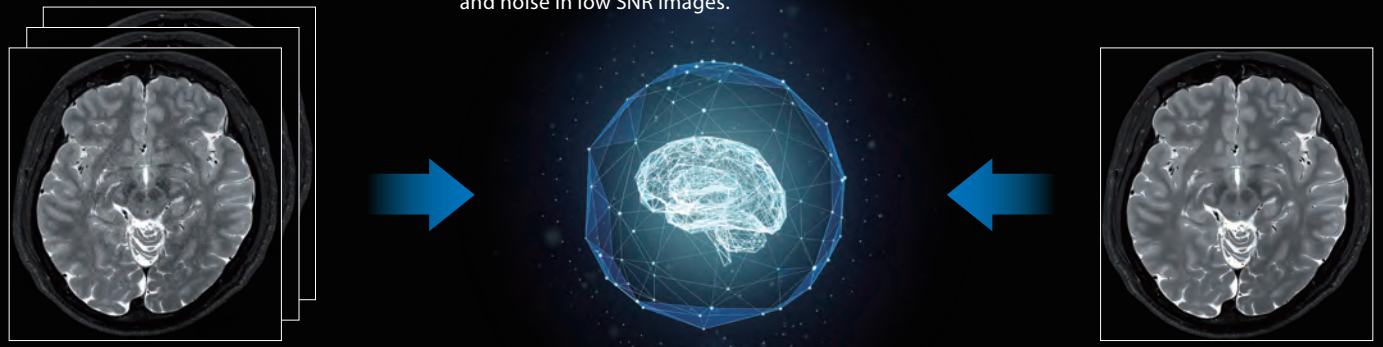
The desired cross section is displayed in real time in conjunction with slice positioning.

See through the noise. This is intelligence.

Advanced intelligent Clear-IQ Engine (AiCE) is the world's first fully integrated Deep Learning Reconstruction technology for MRI, producing stunning MR images that are exceptionally detailed. Harnessing the enormous computational power of a Deep Convolutional Neural Network (DCNN), AiCE is trained to restore low SNR MR data to match the properties of high SNR* images.

Training Phase in factory

Using high SNR images, Advanced intelligent Clear-IQ Engine (AiCE) learns to differentiate between signal and noise in low SNR images.



Low SNR | Deep Learning | High SNR

Operational Phase

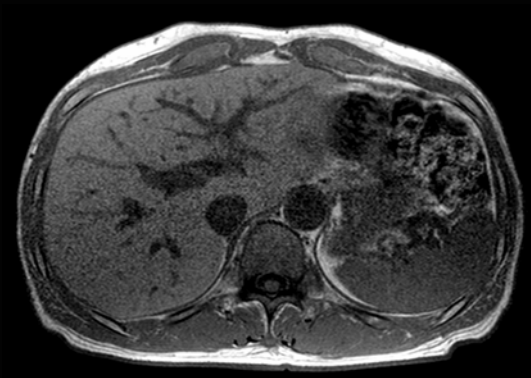
Using the intelligence from the Training Phase, AiCE removes noise from images which results in higher SNR.

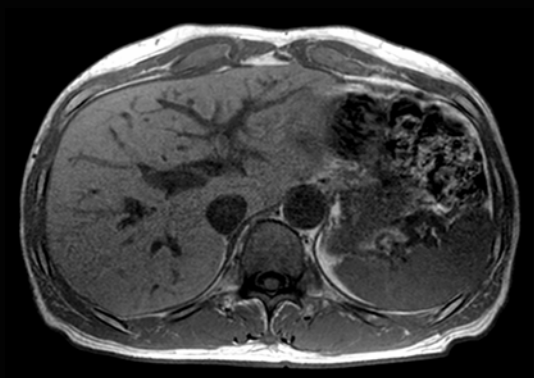
Data Acquisition | Deep Convolutional Neural Network | High SNR

* AiCE provides higher SNR compared to typical low pass filters

Achieve the ideal balance between resolution and speed utilizing Deep Learning Reconstruction

Original image

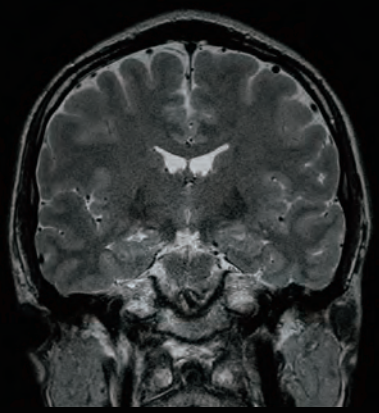




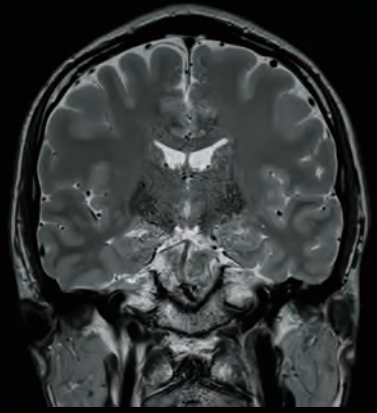
AiCE enhances parallel imaging robustness

In recent versions, AiCE noise estimation has been enhanced to allow noise to be removed from the section where g-factor was considered to adversely effect image quality.

Original image



Conventional



Harness the power of Deep Learning to enable enhanced resolution and achieve fast imaging

AiCE intelligently removes noise from images which results in higher SNR* and enhanced resolution, and can also help save time when used in combination with many accelerated scan applications.

AiCE combines with rapid scanning techniques

In combination with unique Canon scan acceleration technologies like Compressed SPEEDER and Fast 3D mode, you have the ability to focus on faster scans and restore SNR* by removing noise during image reconstruction.

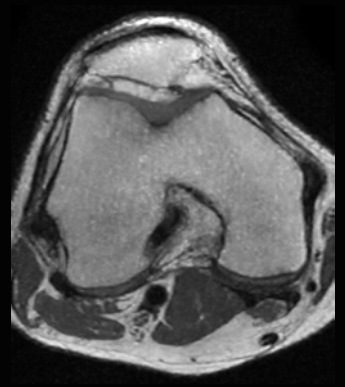
AiCE combines with Compressed SPEEDER

Compressed SPEEDER

Compressed SPEEDER + AiCE Integrated Intelligence

2:44
3D Sg PDw, 0.26×0.26 mm resolution, 0.8 mm, CS 2.0×3.0

MPR Cor



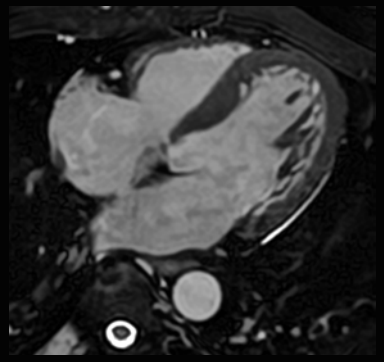
MPR Axi

* AiCE provides higher SNR compared to typical low pass filters

Actual scan times vary by case

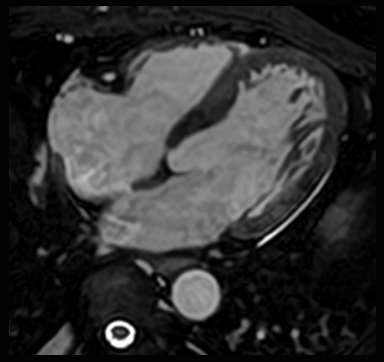
AiCE combines with Fast 3D mode

Conventional



5:03
Ax SSFP FatSat, 1.3×1.3 mm resolution, 1.7 mm

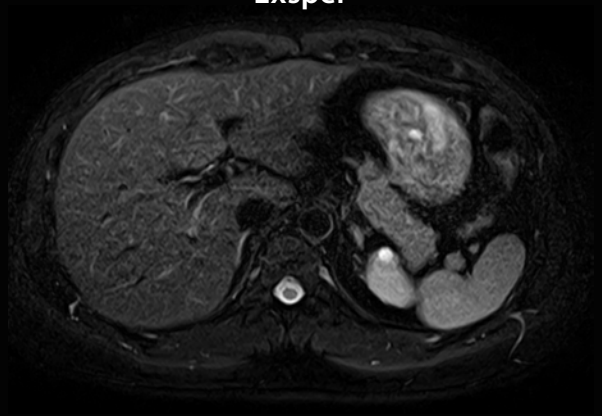
Fast 3D mode + AiCE Integrated Intelligence



3:00
Ax SSFP FatSat, 1.3×1.3 mm resolution, 1.7 mm

AiCE combines with Exsper

Exsper



Exsper + AiCE Integrated Intelligence

0:21
Ax T2w FatSat, 0.53×0.53 mm resolution, 6 mm, Exsper ×2.0

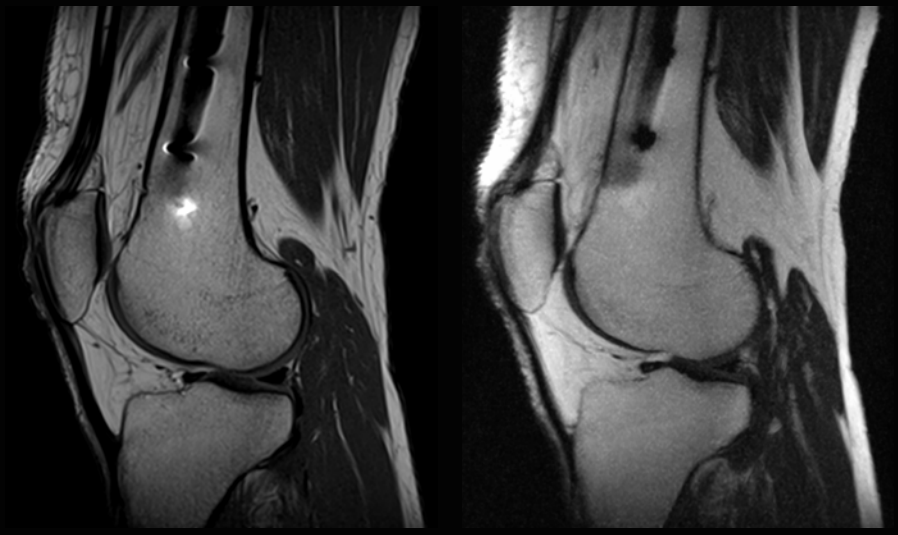
Enhance diagnostic capabilities with imaging robustness

Many scan and patient situations present challenges with motion artifacts and metal distortion. Even amongst these challenges, Canon technology delivers diagnostically relevant images to help you avoid re-scans.

metal Artifact Reduction Technique EXPansion (mART EXP)

mART EXP is 3D method to reduce in-plane and through-plane distortion artifact induced by susceptibility. mART EXP is compatible with Compressed SPEEDER to help accelerate scan times.

Conventional **mART EXP**



3D Sg PDw, 0.7×0.7 mm resolution, 0.7 mm

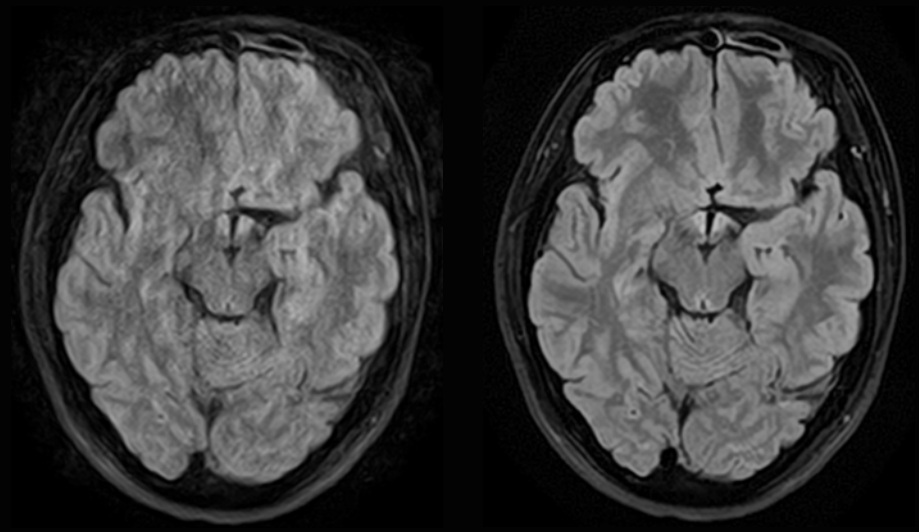
4:03 6:00

Actual scan times vary by case

Iterative Motion Correction (IMC)

IMC is a motion correction technology for motion artifacts caused by sporadic movements. IMC comprises two main steps: shot rejection and image reconstruction.

Conventional **IMC**

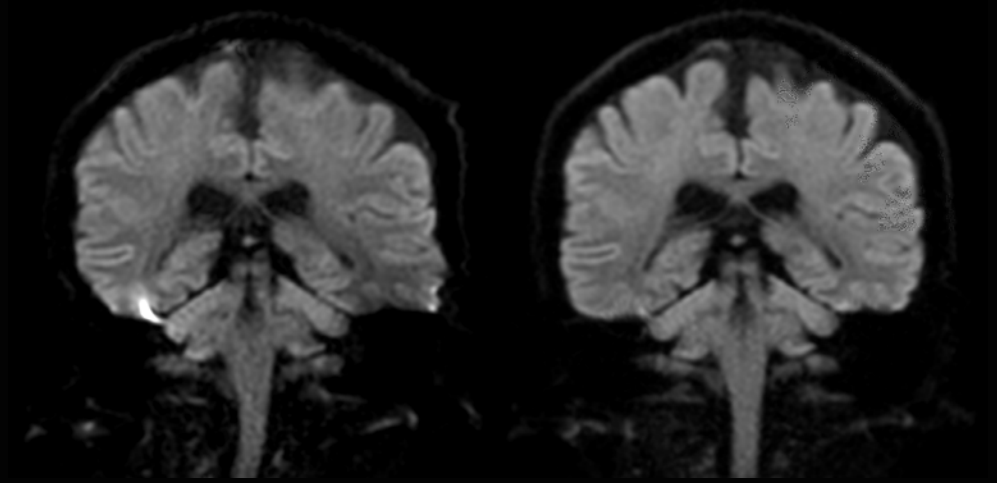


Ax FLAIR, 1.0×1.0 mm resolution, 4.0 mm, 1:17

RDC DWI

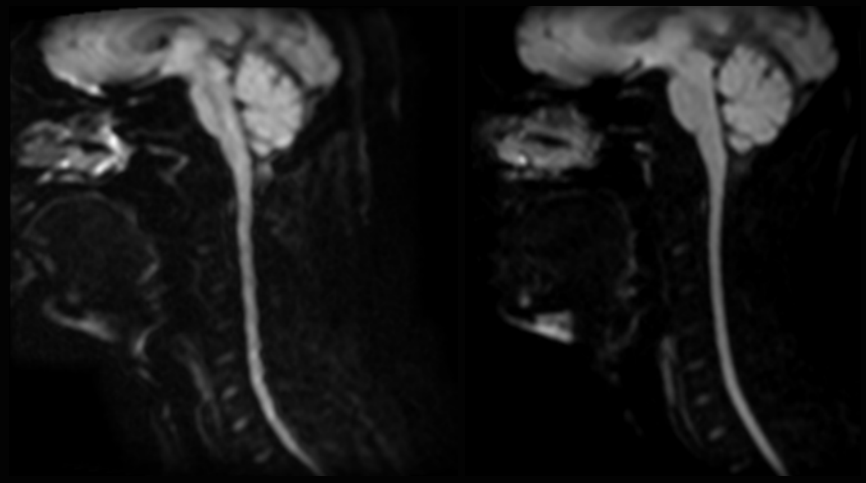
RDC DWI (Reverse encoding Distortion Correction DWI) is intended to reduce distortion in phase encoding direction due to B0 field inhomogeneity or eddy current, in DWI sequence.

Conventional **RDC DWI**



Co DWI/b 1000, 0.65×0.65 mm resolution, 6 mm, 1:29, Exsper ×2.0

Conventional **RDC DWI**



MPR Sg, DWI/b 500, 0.98×0.98 mm resolution, 3 mm, 2:15, Exsper ×3.0

A comfortable patient experience enables effortless procedures

The wide bore patient aperture and in-bore immersive virtual experience enhances patient comfort. The MR Theater helps patients to relax and decrease movement, enabling clinicians to reduce re-scans and produce high-quality images.

Quiet exams prioritizing patient comfort

Canon's unique Pianissimo Σ (sigma) technology dramatically reduces the level of acoustic gradient noise, thus substantially enhancing patient comfort, especially during scanning with fast sequences. And Pianissimo Zen quiet sequences further reduce noise to just above the ambient noise level.

Pianissimo Σ

1 Depending on the condition of usage and examination.

Up To
99%[1]
Noise
Reduction

Easy to clean surfaces

As procedure numbers increase so does the time required for cleaning. Easy to clean surfaces and reduced system touch points help you to simplify the cleaning process. With easy to clean and comfortable pads for the patient and hands-free table operation you have a modern system. In addition, the convenient utility paper holder makes it quick and easy to change the paper on the table between patients.

Patient pads

Utility paper holder

Foot operation

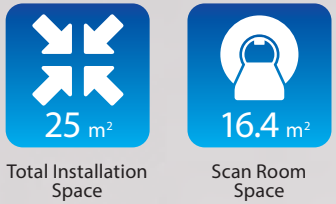
Canon
Patient Name
1991/05/08 30Y
165.0cm / 50.0kg
ID : MEM_ID0000028

Advanced productivity, and efficiency to boost the bottom line

With advanced productivity Vantage Fortian keeps your exams moving. Combining industry leading patient friendly features, low energy consumption, a small footprint and outstanding Canon service offerings, Vantage Fortian takes care of business.

Minimize space

Minimize investment in valuable floor space with a 25 m^2 footprint that excels in the 1.5T wide bore market.[2]



Total Installation Space

Scan Room Space

ECO Mode

ECO Mode reduces power consumption to minimize system operating costs. ECO Mode can be automatically activated simply by lowering the couch once the procedure is complete.

ECO Mode

Power Requirement

2 The 5 Gauss line is not confined within the Scan Room. Controlled access area should be taken into account by the facility when preparing for installation. The above specifications may not meet the local requirements. Please consult with your architectural and/or electric consultant for coding requirements. Some power equipment may be required to be placed in a dedicated electrical room. The minimum footprint may not be applied to some cases depending on each site.

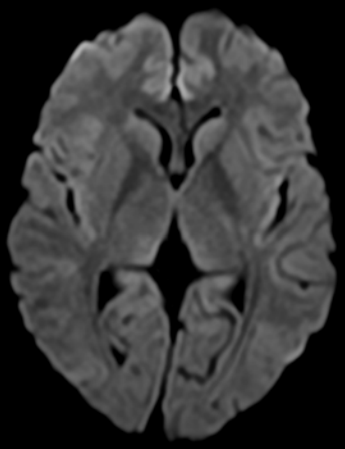
Fast routine brain examination

Accelerate routine brain examinations utilizing AiCE to enhance SNR

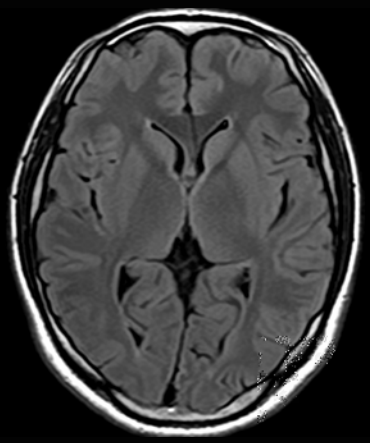
AiCE Integrated Intelligence

Total Scan time

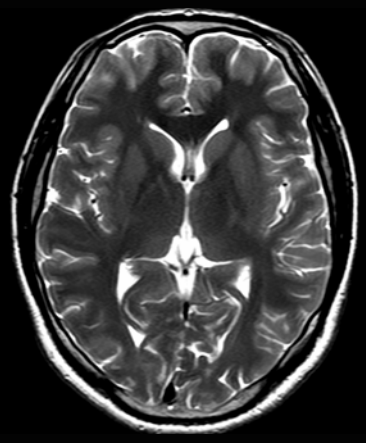
4:57



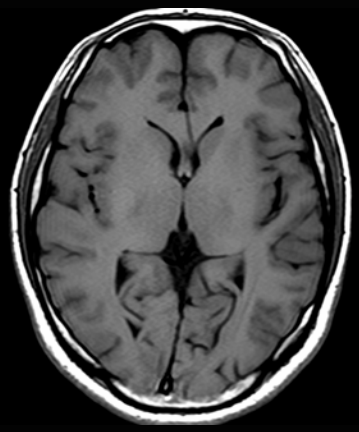
0:27
Ax DWI / b1000,
1.42×1.42 mm resolution, 6 mm



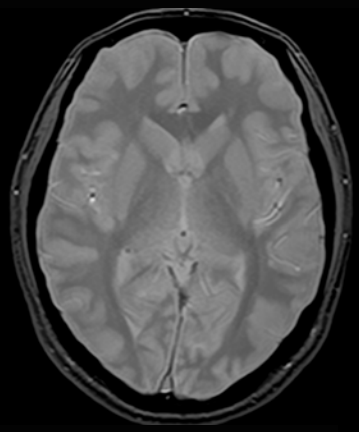
1:00
Ax FLAIR, 0.9×0.9 mm resolution, 6 mm



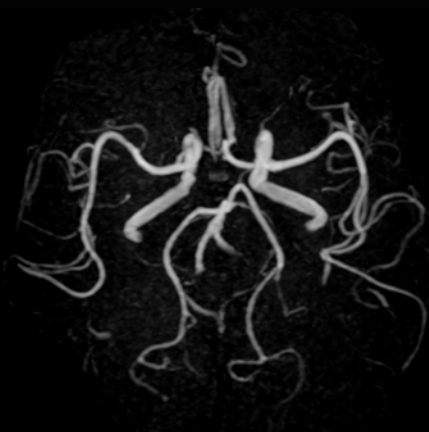
0:28
Ax T2w, 0.6×0.6 mm resolution, 6 mm



0:42
Ax T1w, 0.7×0.7 mm resolution, 6 mm



0:49
Ax T2*, 0.9×0.9 mm resolution, 6 mm



1:30
3D Ax T1w, 0.62×0.62 mm resolution,
1.2 mm

Actual scan times vary by case

Fast routine L-spine examination

Accelerate routine L-Spine examinations utilizing AiCE to enhance SNR

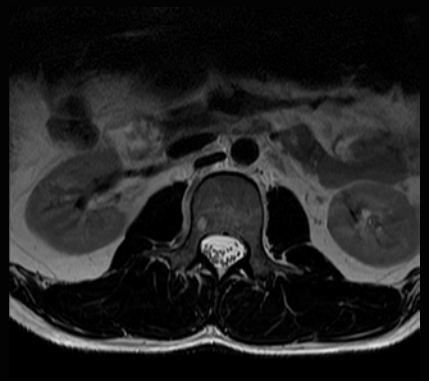
AiCE Integrated Intelligence

Total Scan time

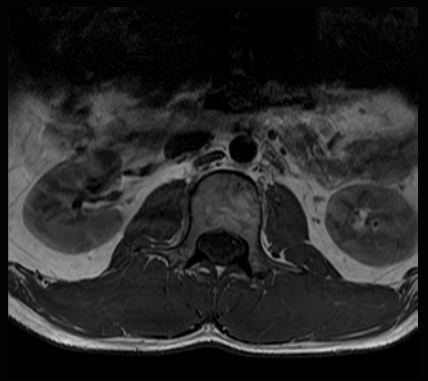
3:38

0:57
Sg T2w, 0.72×0.72 mm resolution, 4.0 mm

0:58
Sg T1w, 0.86×0.86 mm resolution, 4.0 mm



0:57
Ax T2w, 0.69×0.69 mm resolution, 4.0 mm



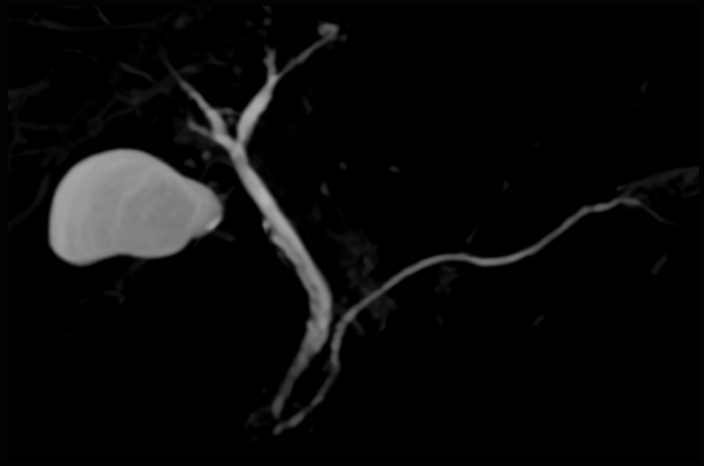
0:58
Ax T1w, 0.86×0.86 mm resolution, 4.0 mm

MRCP examination

MRCP imaging time can be shortened utilizing Fast 3D

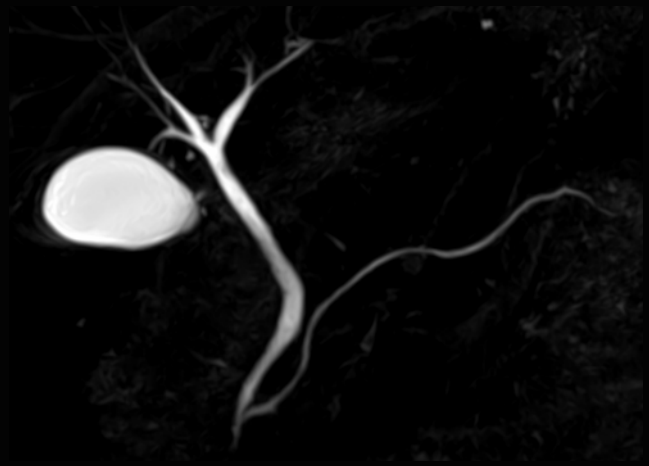
Fast 3D mode

BH



3D MRCP(BH), 1.0×1.0 mm resolution, 2.2 mm, 0:20

Resp

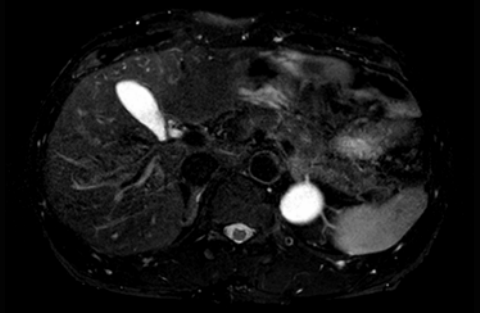


3D MRCP(Resp), 0.86×0.86 mm resolution, 2 mm, 2:34

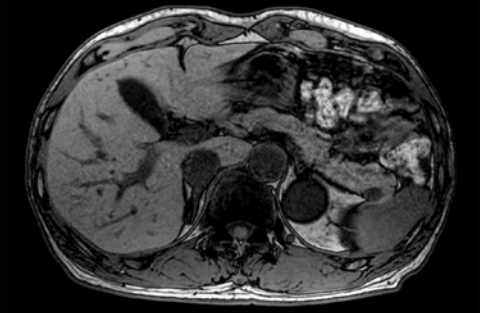
powered by **Altivity**

AiCE Integrated Intelligence

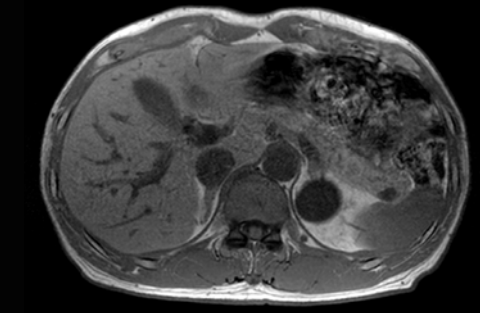
High-Resolution Abdominal Imaging: Increase SNR using AiCE*



Ax FS T2w, 1.2×1.2 mm resolution, 5 mm, 0:20



Ax T1w out of phase, 0.99×0.99 mm resolution, 5 mm, 0:16



Ax T1w in phase, 0.99×0.99 mm resolution, 5 mm, 0:16

* AiCE provides higher SNR compared to typical low pass filters

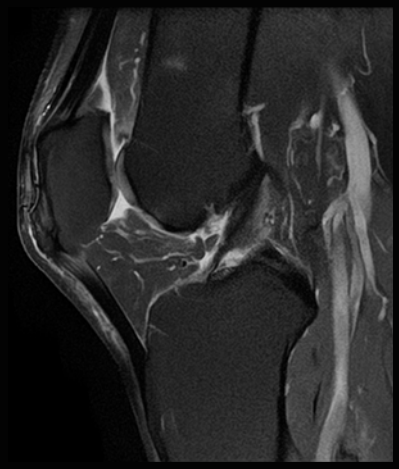
Actual scan times vary by case

High-Resolution Knee Imaging

Increase SNR using AiCE*

Original

AiCE Integrated Intelligence



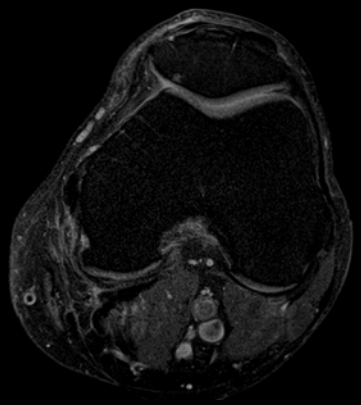
FS Sg PDw, 0.42×0.42 mm resolution, 3.0 mm, 2:31

Original

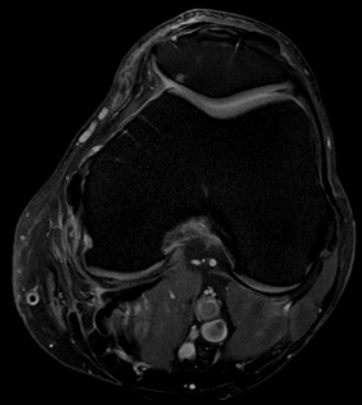
AiCE Integrated Intelligence

Co PDw, 0.38×0.38 mm resolution, 3.0 mm, 1:58

Original



AiCE Integrated Intelligence



Ax PDw, 0.4×0.4 mm resolution, 3.0 mm, 1:56

* AiCE provides higher SNR compared to typical low pass filters

Vantage Fortian

Delivering advanced productivity to the busy MR suite, powered by intelligence

Vantage Fortian delivers new ideas to the MRI workspace, helping you maximize procedural performance and efficiency.
From a mobile interface that allows remote monitoring and seamless data integration, to in-room scan assist features, we get you and your patient moving from waiting room to scan room to home.
Vantage Fortian features technologies that are powered by Altivity, Canon's suite of intelligent AI solutions that remove noise from images, automate routine set-up steps, and confirm patient positioning before scanning.
Efficiency is the focus with Canon's unique ForeSee View scan planning and expanded Auto Scan Assist automating routine workflow. And scan time is accelerated by a range of rapid scan applications including Compressed SPEEDER for 2D and 3D sequences, Fast 3D and Parallel Imaging, while Advanced intelligent Clear-IQ Engine (AiCE), helps you to alleviate the inherent and fundamental tradeoffs between SNR, scan time and resolution.
Vantage Fortian is designed to relax the patient with flexible and versatile Shape Coils, Pianissimo noise reduction, 71 cm open bore and MR Theater—all designed to put patients at their ease. And you can also manage challenging patients with motion correction, reduced breath hold times, free-breathing and contrast-free applications.
Vantage Fortian delivers stable and consistent imaging performance through Canon's PURERF technology, enhancing diagnostic confidence for staff and physicians alike. Clinical capability is further supported with new techniques like fat fraction quantification for liver imaging. Combined with a small footprint, low power consumption, outstanding reliability and excellent maintenance programs, you can experience advanced MRI productivity that integrates seamlessly into your facility.
Now, let's move!

Enhance workflow

- Remote monitoring and seamless patient handling with mobile Tablet UX
- Enable correct patient positioning and coil set-up with Ceiling Camera and Intelligent Monitor
- Efficiently plan with ForeSee View and automate routine sequences with Auto Scan Assist

Accelerate scans and harmonize trade-offs

- Advanced intelligent Clear-IQ Engine (AiCE) helps you to see through the noise to deliver clear, sharp and distinct images
- Compressed SPEEDER for 2D and 3D, Fast 3D and parallel imaging scan technologies reduce scan time
- Consistent and robust imaging with PURERF
- Advanced post processing with Olea/Vitrea

Boost the bottom line

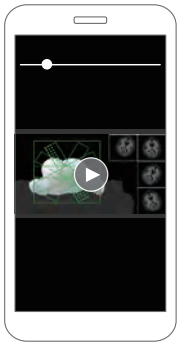
- Small footprint and low energy consumption minimizes operational costs
- MR Theater helps relax patients with a virtual immersive experience
- Pianissimo technology delivers whisper quiet scanning
- Short magnet and 71 cm open bore offers an open MRI scanning environment

How to Use the medicalAR App

Images with the icon can be viewed in motion. Download the app by scanning the QR code or visit our website:
https://global.medical.canon/about/medicalAR

1 Launch the app and start the camera.

2 Scan the whole page, including an image with the icon.



3 When the trigger image is captured, the linked contents will be displayed.

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Made For life