

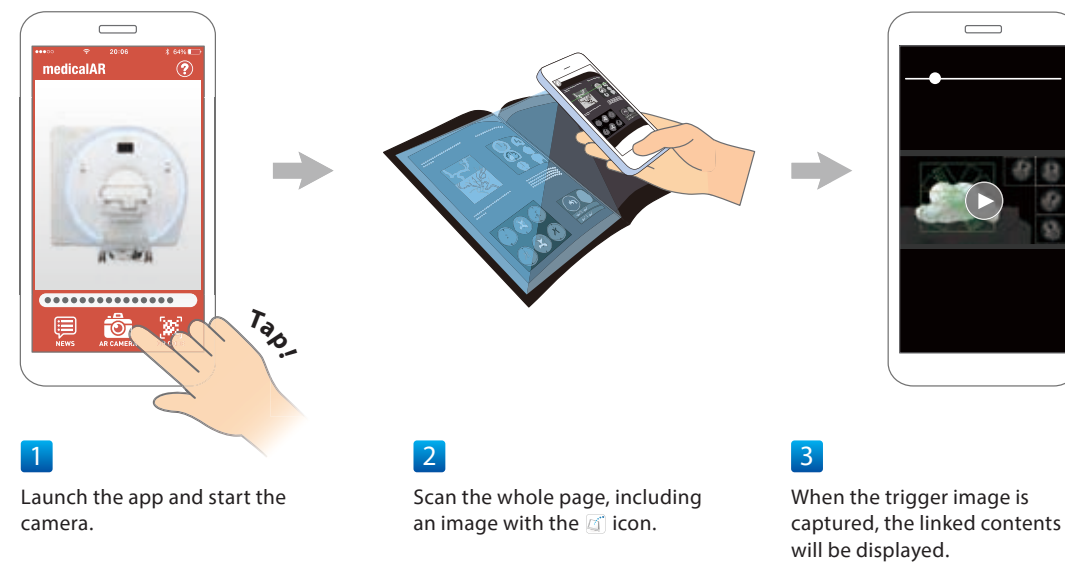
Canon

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>



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CANON MEDICAL SYSTEMS CORPORATION

<https://global.medical.canon>

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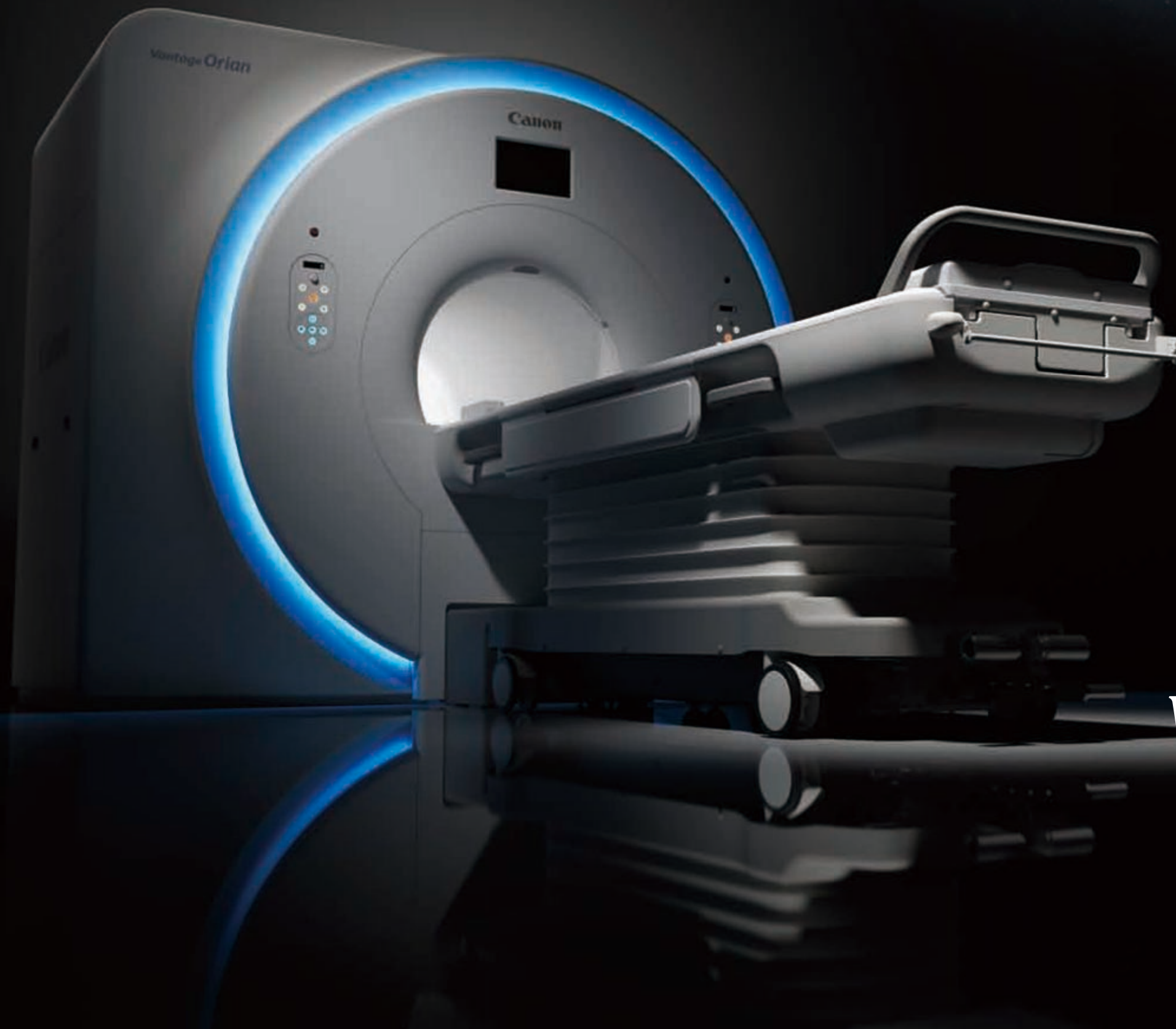
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Made For life

Vantage Orian

Productivity
Comfort
Confidence





High Productivity
Patient Comfort
Clinical Confidence

Designed to increase productivity and lower running costs, ensure patient comfort and deliver uncompromised clinical confidence, Vantage Orian is the perfect answer to your 1.5 Tesla MRI business and clinical requirements.

Vantage Orian

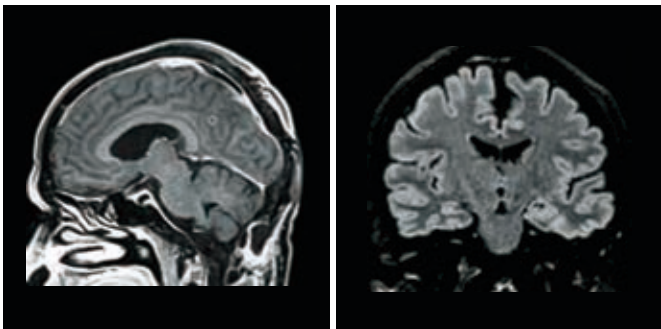
Intelligent new technology to advance productivity

Reducing scan time improves the patient experience and increases throughput. With intelligent new technology that advances our rapid scan technology, Vantage Orian delivers on a productivity promise that goes beyond expectations.

Fast 3D mode

New Fast 3D reduces scan times up to 50%¹ for different contrast weighted images while maintaining homogeneity and fat suppression.

¹ As compared to standard FASE3D sequence



Post CE T1WI

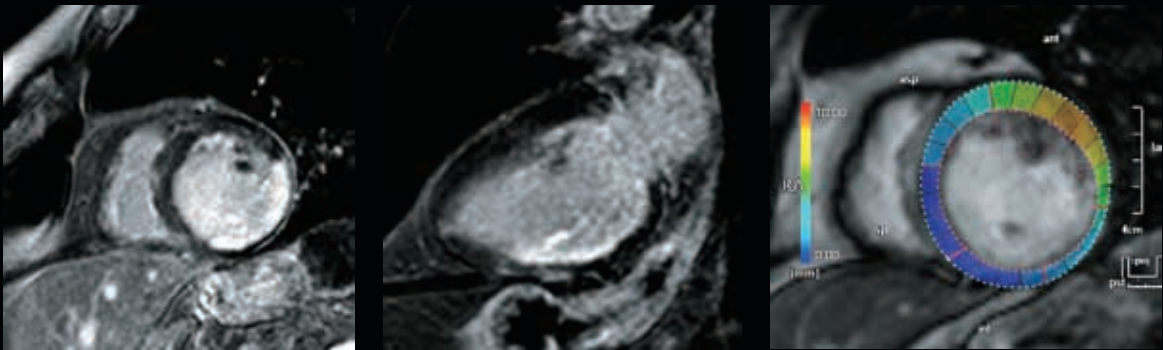
MPR FLAIR

Left: Courtesy of Dr. Hamamoto, Jichi Medical University Saitama Medical Center, Japan

"Fast 3D shortens imaging time while maintaining high quality images comparable to those offered by conventional techniques, contributing to work-flow improvements in routine medical care. It also delivers improved image quality without extending imaging time when compared to existing FASE3D."
—Dr. Kohei Hamamoto, Jichi Medical University Saitama Medical Center, Japan

k-t SPEEDER

Up to x8 accelerated k-t SPEEDER allows high frame rate cardiac cine and perfusion imaging with free breathing. k-t SPEEDER enables you to image a wide range of cardiac patients that have difficulty holding their breath for long periods of time.



"Cardiomyopathy revealed severe systolic dysfunction on k-t SPEEDER cine images. There was full-thickness late gadolinium enhancement of the entire inferior wall, inferolateral walls of the left ventricle"
—Dr. César Nomura, Instituto do Coração, Brazil

Courtesy of Dr. Nomura, Instituto do Coração, Brazil

WFS DIXON

WFS² DIXON (FSE2D) achieves consistent fat suppression and homogeneity while acquiring four different tissue contrasts in one scan, reducing the total number of scans you need to acquire. Available for T1, T2, and PD sequences, WFS DIXON can be acquired in any area of the body.

² WFS : Water Fat Separation

"With WFS we have been able to achieve stable fat suppression which has improved the visibility of the lesion and as a result the scan time has become more efficient."
—Dr. Akihiko Arakawa, Department of Radiology, Saiseikai Kumamoto Hospital, Japan

Carcinomatous meningitis WFS with Contrast Enhanced



Courtesy of Dr. Arakawa, Saiseikai Kumamoto Hospital, Japan

Faster workflow means more focus on the patient

With the complexity of scan planning, achieving scan plane reproducibility can be challenging and time-consuming. EasyTech technology takes away the variability and helps you improve workflow with automatic slice alignment for neuro, spine, cardiac and now knees, standardizing your workflow with automatic positioning.

New Dockable Table

The new Dockable Table enhances workflow and provides easy patient handling allowing medical staff to respond to any patient requirement quickly and easily.

Productivity focused technology that improves workflow and image consistency

ForeSee View

ForeSee View is an essential new scan planning tool designed to allow you to preview your slice planning in real time. This tool is particularly useful in anatomies that can be difficult to plan such as the pancreas, the heart, and certain orthopedic joints. This excellent new feature reduces the need for re-scanning and saves time on scan planning for all body regions.



Intelligent Monitor

The intelligent gantry interface has been completely re-designed to enhance workflow and save set-up time, displaying important patient related and coil information, and allowing you to ensure a proper and complete setup without leaving the patient's side.



Outstanding imaging applications for every day performance

SUREVOI Knee and KneeLine+

SUREVOI Knee supports the accurate alignment of the knee to the iso-center which reduces artifact related re-scans. KneeLine+ improves reproducibility and image quality by detecting anatomical landmarks automatically for different plane settings such as sagittal, coronal, axial and obliques.

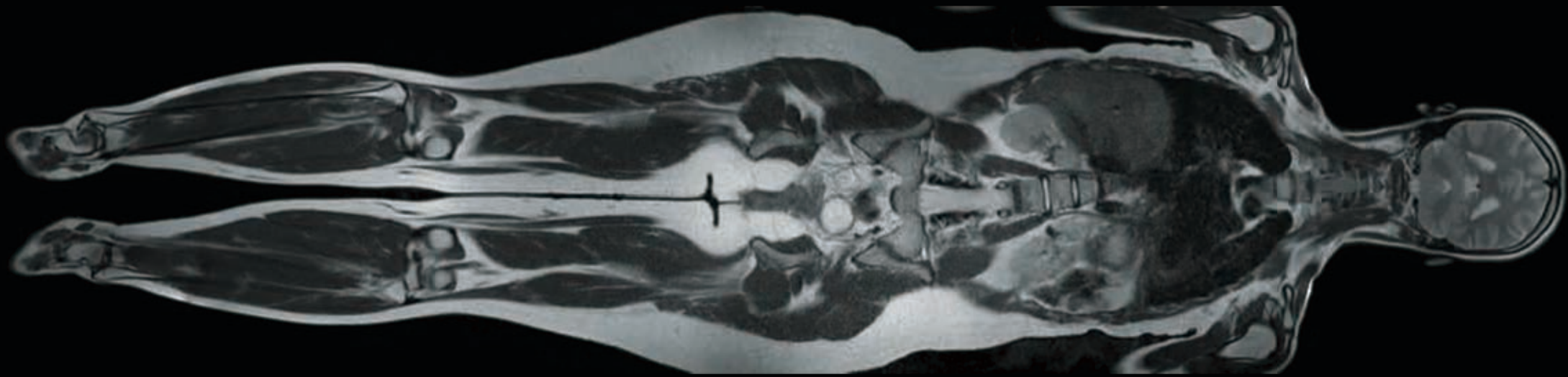
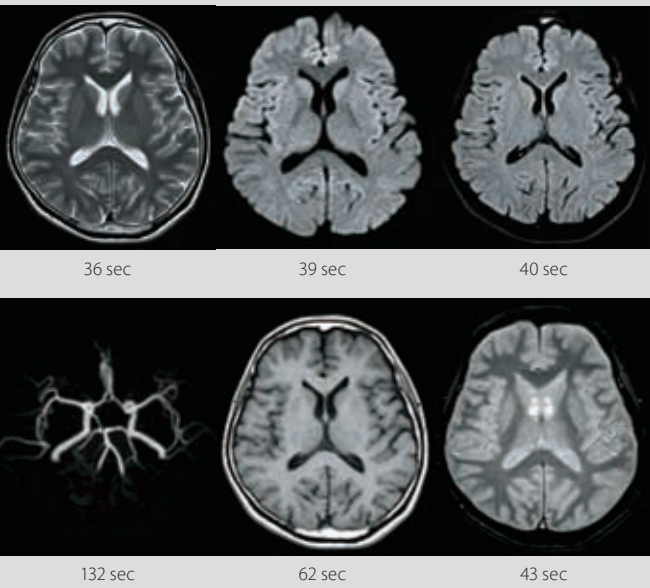


NeuroLine+

Achieve outstanding scan consistency for all your brain exams with NeuroLine+. The function's intelligent alignment algorithm allows you to automatically set up according to AC-PC or OM line.



Fast brain protocol

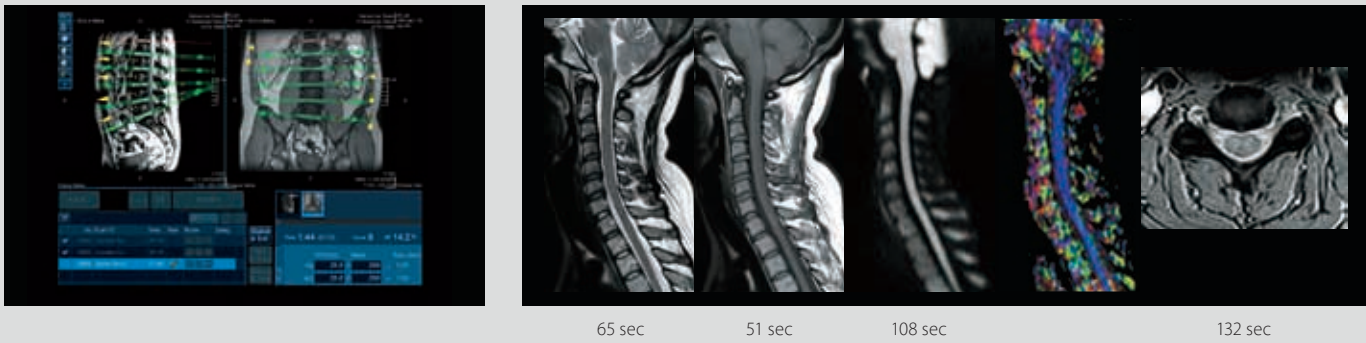


EasyTech

SpineLine+

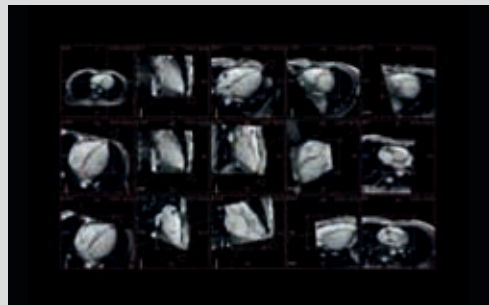
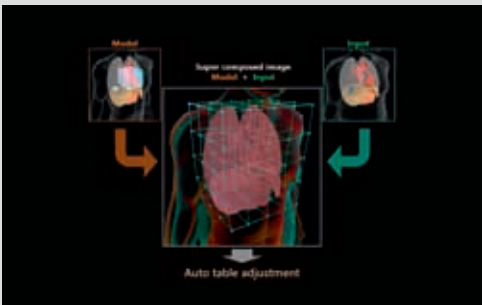
With its auto-locator functionality, SpineLine+ allows you to plan spine studies quickly and easily. Sagittal and coronal locators allow you to set double-oblique slices, enhancing the reproducibility of follow-up exams.

Fast C-Spine Protocol



SUREVOI Cardiac and CardioLine+

SUREVOI Cardiac automatically detects the location of the patient's heart and moves it to the center of the magnet where the homogeneity is the highest. CardioLine+ can then automatically detect 14 different standard views of the heart for quick workflow.



Total cost of ownership a smart investment choice

Combining a 71 cm wide bore with high end ^{PURE}RF and Saturn Technology migrated from our 3T portfolio, Vantage Orian packs everything you need into a 1.5T system with low energy consumption, a small footprint and dockable table for seamless patient handling.

ECO Space

Minimize investment in valuable floor space with a 25 m² footprint that excels in the 1.5T wide bore market.³

³ 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 such as for access as is required by the Americans with Disabilities Act in the United States. 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.



ECO Mode Plus

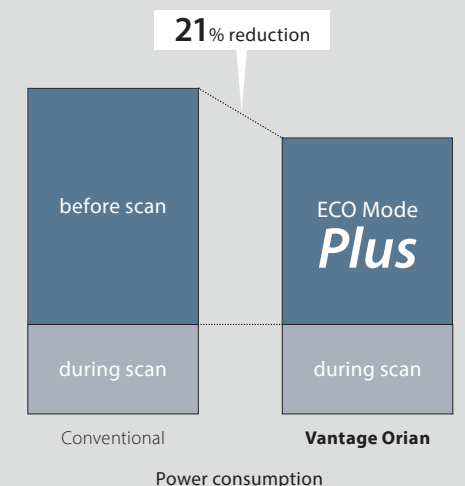
With new technology that automatically minimizes power consumption by up to 21% when the scanner is not being used with no effect on image quality.

ECO Table

ECO Table is automatically activated simply by lowering the couch to the home position (physically or at the console), when the dockable table is removed, or when the procedure is completed.

ECO Cooling System

Further reduces power automatically when the system is not operating through the intelligent operation of the cooling compressor.



Patient friendly features putting your patients first

Help your patients relax with MR Theater in a 71 cm wide bore, and deliver whisper quiet exams with Pianissimo and Pianissimo Zen.

MR Theater and wide bore

The wide bore patient aperture and in-bore immersive virtual experience enhance patient comfort. The MR Theater encourages patients to relax and stay still, enabling clinicians to produce, high-quality imaging.



Pianissimo and Pianissimo Zen

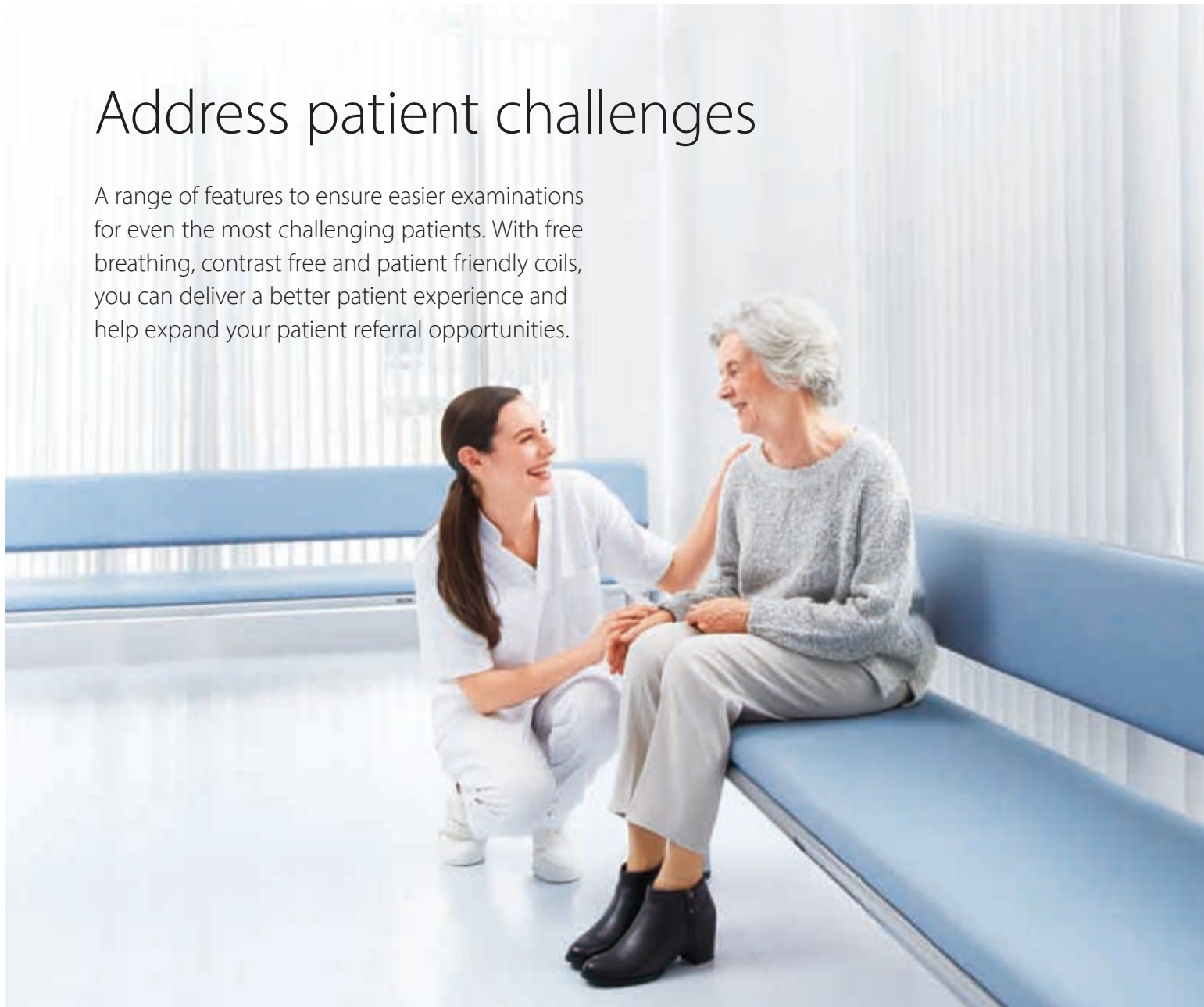
Pianissimo technology significantly reduces the noise in and around the MRI environment for every patient, every sequence, every time. And Pianissimo Zen quiet sequences further reduce noise to just above ambient noise level, making exams even more comfortable and easier to complete.

4 99% reduction by unit of Loudness level "dBA".



Address patient challenges

A range of features to ensure easier examinations for even the most challenging patients. With free breathing, contrast free and patient friendly coils, you can deliver a better patient experience and help expand your patient referral opportunities.



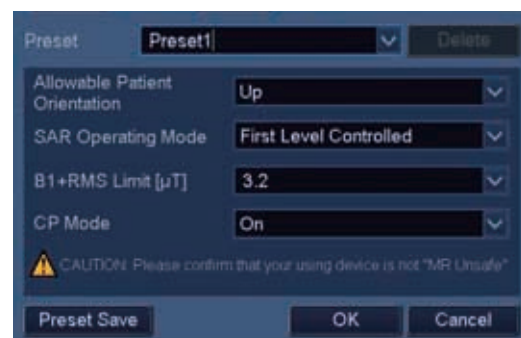
Patient friendly integrated coil technology - Up to 128

Canon Medical Systems' integrated coils make it easy to handle multiple studies by allowing you to position the patient and utilize the coils you need in one easy step. Along with our range of dedicated Atlas SPEEDER coils that enhance SNR, our range of flexible coils can be used on many hard to image body parts and patient sizes to help enhance images.



Limited Scan Mode

Utilize specific scan mode to set imaging parameters in order to manage patients with implants. In addition, by saving parameter settings for each implant device you can improve workflow for future procedures.



Non-Contrast MRA

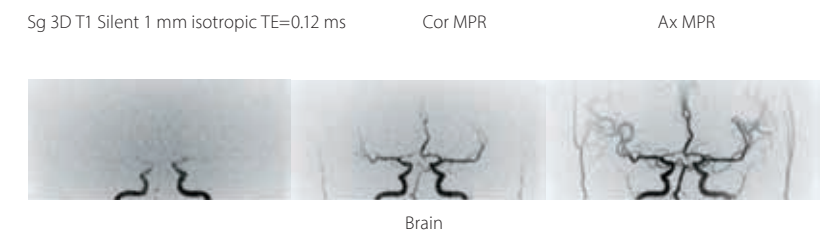
An increasing awareness of the potential risks associated with gadolinium-based contrast agents has revealed the need for alternative, contrast-free MRA techniques. Non-Contrast MRA sequences minimize risk to patients with sensitivity to contrast while producing exceptional diagnostic images.



Quiet examination

Vantage Orian's mUTE⁵ application suppresses high-speed gradient field switching, making it possible to provide even quieter scanning.

5 mUTE : minimized acoustic noise utilizing UTE



Brain



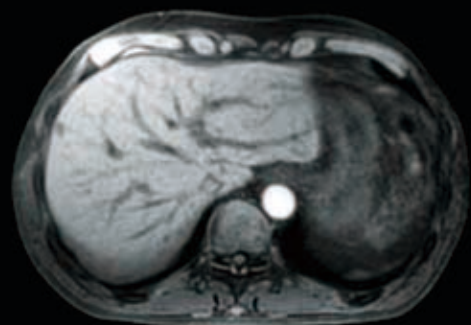
Expand your patient services

Expand your patient referrals as difficult to image patients can now be addressed with a range of new solutions

Quick Star free breathing

Quick Star free breathing and motion reduction can be helpful for challenging patients that have difficulty holding their breath, especially for liver examinations or uncooperative patients like pediatrics.

“Quick Star allows us to obtain high resolution 3D T1 WI with free breathing and is very useful for visualizing the lesion in the abdominal area of the patient who has difficulty to hold their breath.”
–Dr. Hamamoto, Jichi Medical University Saitama Medical Center, Japan



Quick Star free breathing

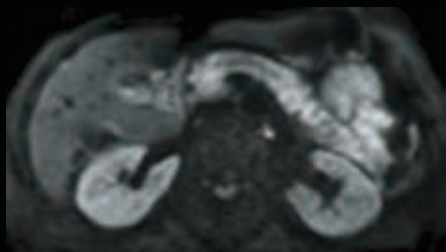


MPR imaging

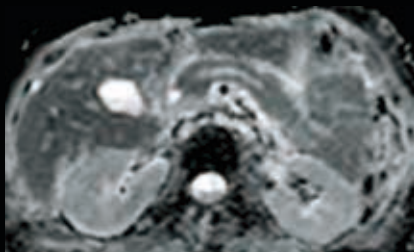
Courtesy of Dr. Hamamoto, Jichi Medical University Saitama Medical Center, Japan

MultiBand SPEEDER

MultiBand SPEEDER acquires multiple slices simultaneously, which enables reduced scan times. DWI scans in particular can be acquired in about half the time compared to previous sequences.



DWI b800



ADC map

Courtesy of Clinica Creu Blanca, Spain

“MultiBand Diffusion Sequence has reduced our clinical scan times by half compared to the traditional Spin Echo Diffusion for Abdominal Regions. Moreover, the new multiband sequence has helped reduce artifacts in areas of high susceptibility such as air and bone while overall improving ADC maps.”
–Dr. Xavier Alomar, Clinica Creu Blanca, Spain

Utilize premium technology to boost clinical confidence

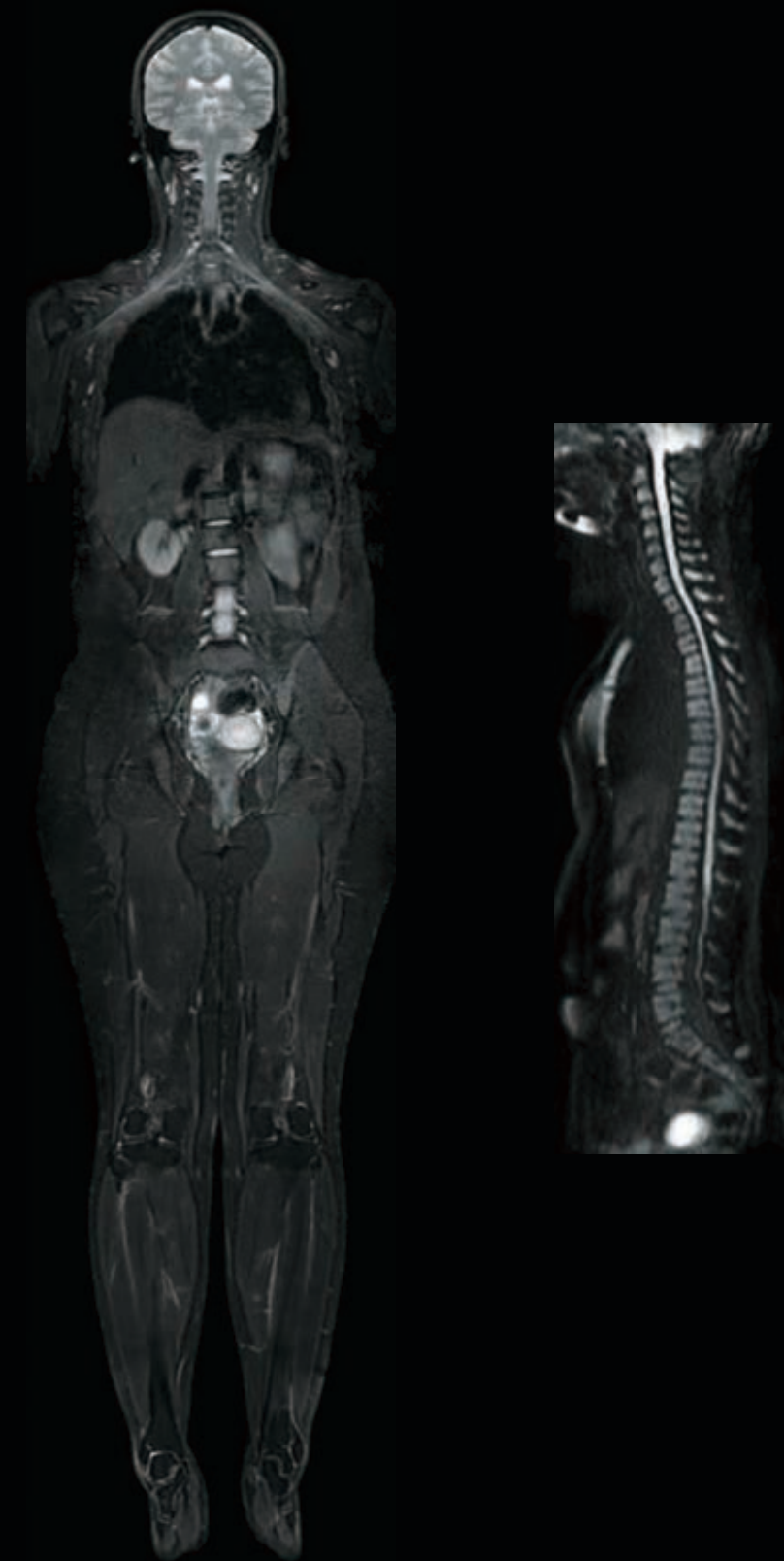
With advanced new hardware delivering stable and reliable imaging, Vantage Orian enhances clinical confidence. With a G_{max}^6 of 45 mT/m and SR^7 200 T/m/sec⁸ achieve enhanced signal to noise and high resolution imaging for advanced MR examinations such as Cardiac, Neuro and Angiography.

6 G_{max} : Maximum Gradient amplitude

7 SR : Maximum Slew rate

8 Optional gradient subsystem allows 34 mT/m and 155 T/m/sec

***G_{max} 45 mT/m
 SR 200 T/m/sec***



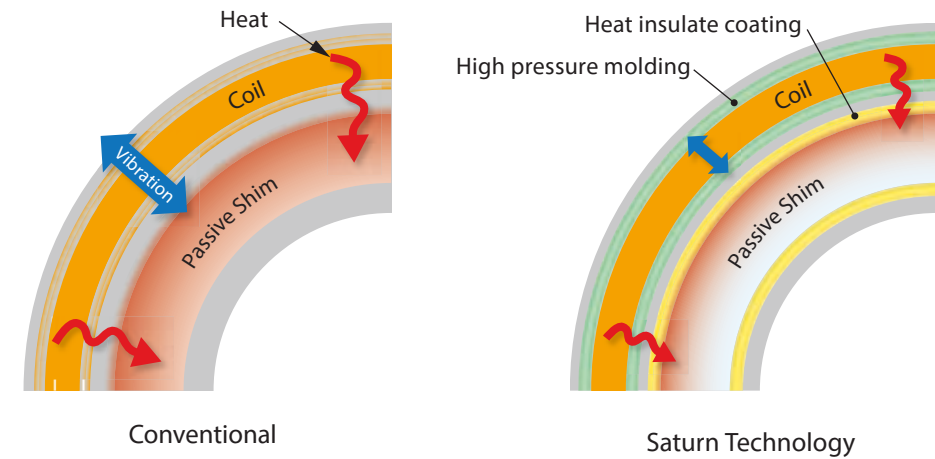
Consistent imaging

Be a leader of MR imaging and be confident that you are offering the best 1.5T MRI patient technology available. With new and migrated ^{PURE}RF and Saturn Technology, Vantage Orian delivers stable and consistent imaging performance from patient to patient, across body regions and through a range of advanced applications.



Saturn Technology

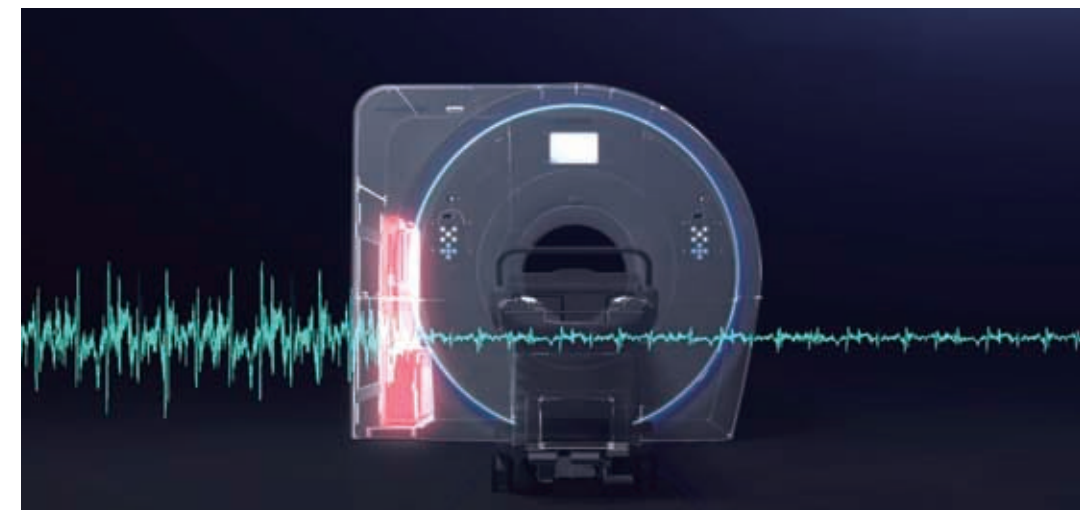
Our unique Saturn Technology provides more consistent image quality through increased gradient stability and precise center frequency control.



Compared with a conventional structure, Saturn Technology's high pressure molding produces less signal blur and provides crisper images, while the heat insulate coating suppress temperature increases under high loads, leading to more stable image quality over a longer period.

^{PURE}RF Rx

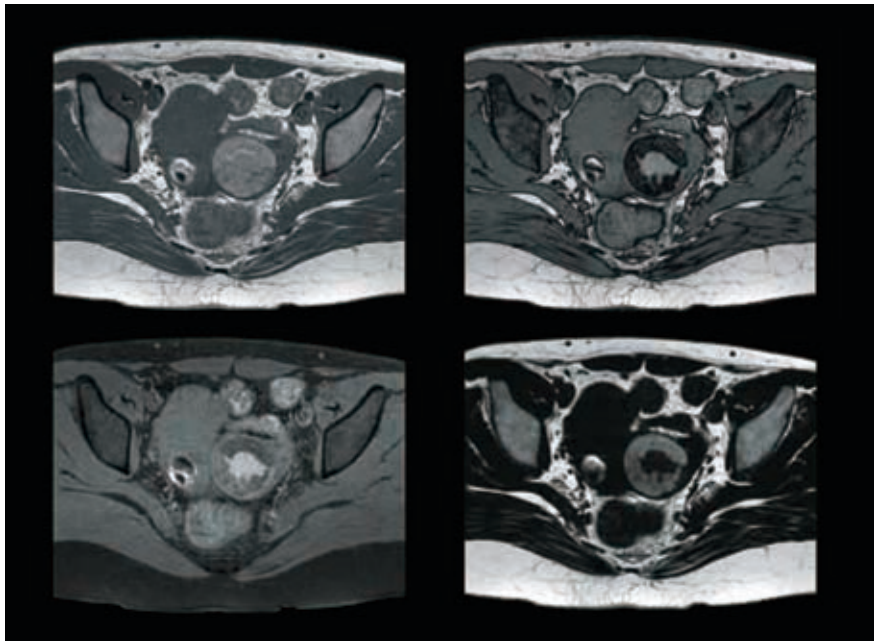
Adaptive noise cancellation ^{PURE}RF Rx technology employs a proprietary algorithm and reduces noise at the source. The result is an increase in SNR up to 38% and enhanced image quality.





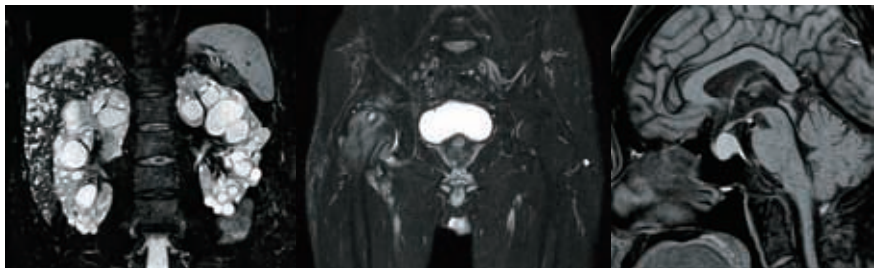
Quick and consistent imaging

Vantage Orian redefines clinical confidence with excellent image consistency across all procedures. Achieve excellent MRI diagnostic services with high quality and stable output, enhancing imaging capabilities for your patients and your business.



WFS DIXON T1WI

WFS DIXON yields 4 different contrasts in a single scan to save time which can effectively cut scan time in half when both standard (un-fat suppressed) and fat-saturated images are acquired in the same plane.



Water image T2WI

Water image T2WI

Water image T1WI

Courtesy of Dr. Arakawa, Saiseikai Kumamoto Hospital, Japan

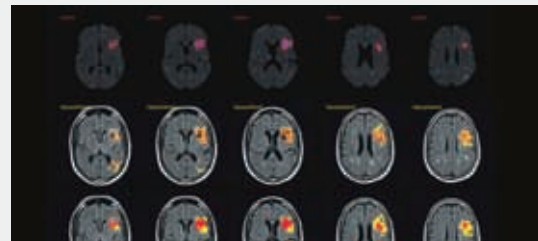
“Since WFS can shorten scan time, it can reduce patient burden and improve the examination efficiency.”
—Mr. Takeshi Ohta, Radiographer, Department of Radiology, Saiseikai Kumamoto Hospital, Japan

Advanced post processing enhances diagnosis while helping to expand patient services

Access advanced applications with Olea/Vitrea™ post processing tools.

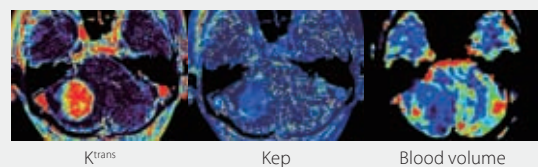
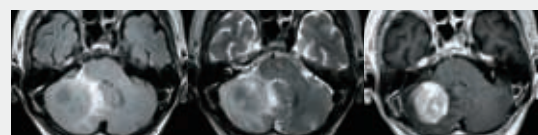
Stroke analysis

Complete post-processing solution for stroke care with automatic mismatch assessment and volume computation.



Permeability analysis

Automatically and accurately computes qualitative and quantitative permeability maps.

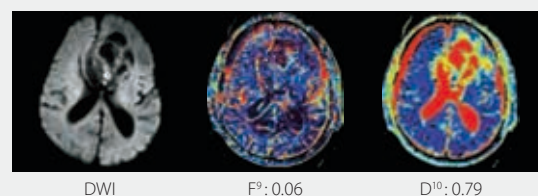
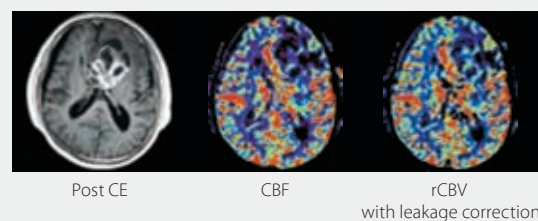


Courtesy of Fujita Health University Hospital, Japan

Perfusion and IVIM

Perfusion automatically and accurately computes perfusion maps.

IVIM automatically quantifies micro-perfusion with diffusion only or computes non-acquired diffusion b-values.

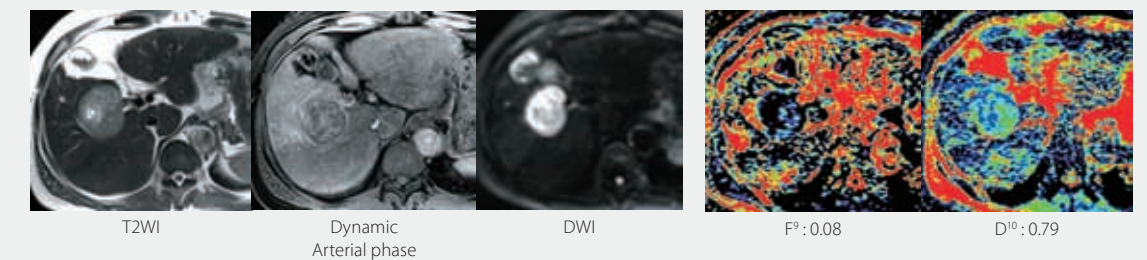


9 Vascular volume fraction
10 Molecular diffusion restriction coefficient

Courtesy of St. Marianna University School of Medicine, Japan

Bayesian IVIM

Bayesian-based method provides a rigorous probabilistic estimation of parameters. It is fully adaptive, delay-insensitive and highlighted better results than other methods.

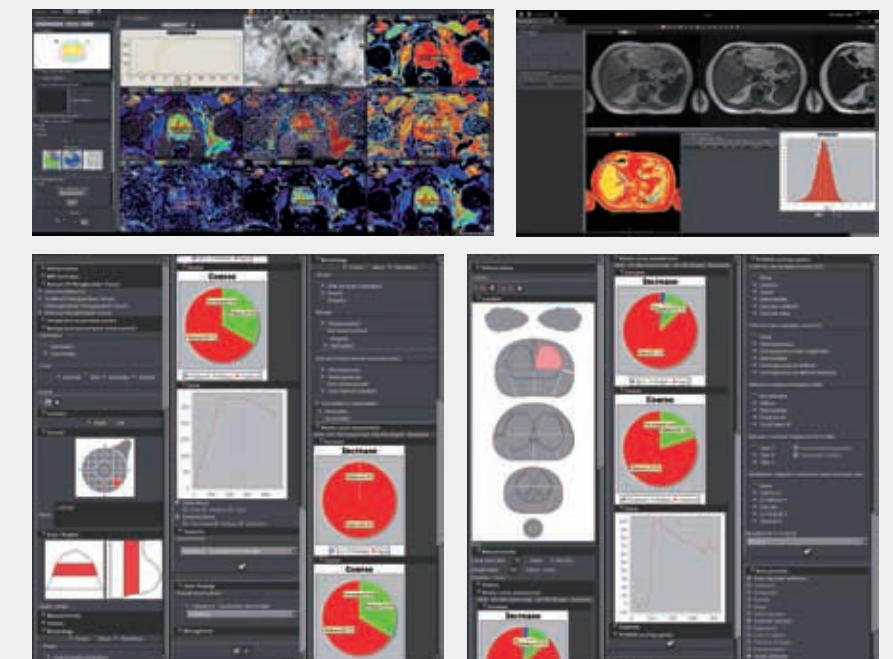


Courtesy of St. Marianna University School of Medicine, Japan



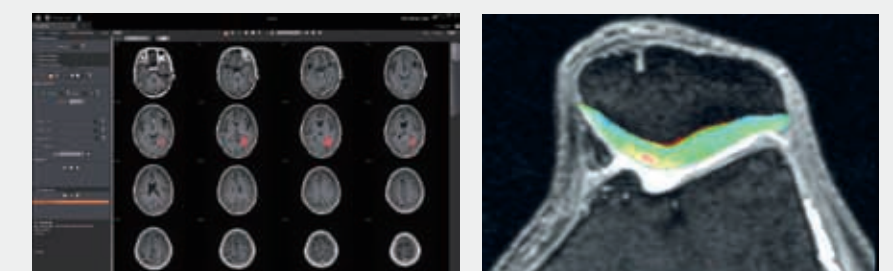
Dedicated automatic reporting

Stroke, prostate (PI-RADS® v1 and v2) and breast (BI-RADS®) automatic compliant reports.



Volume segmentation

Automatic or semi-automatic segmentation tools to compute volume of interests from various anatomical areas such as cartilage or brain.



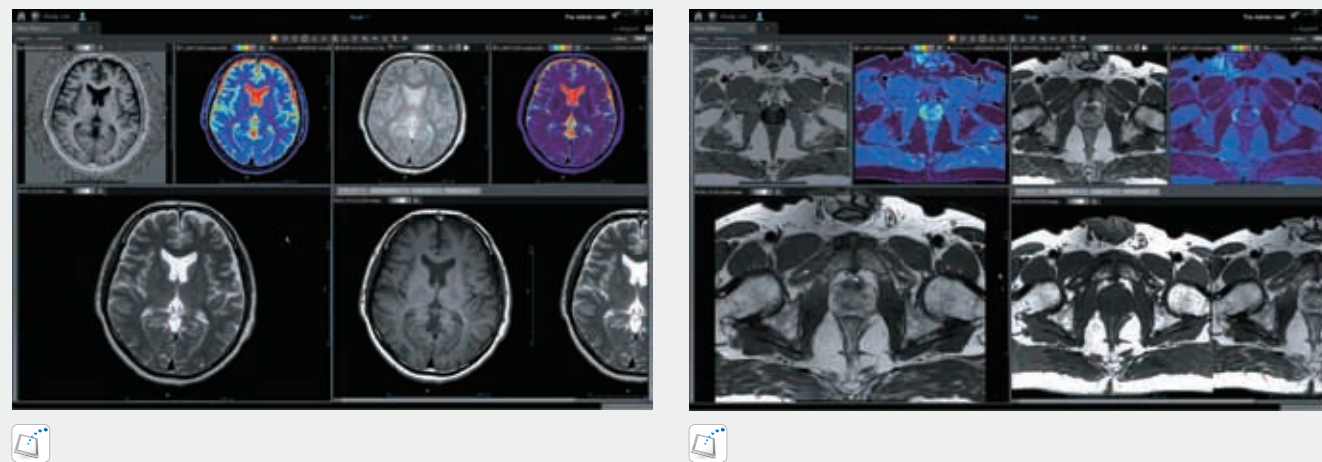
Advanced post processing delivers enhanced diagnosis while expanding patient services

Olea / Vitrea post processing combined with high performance sequences increases your clinical confidence.

Olea NOVA™+

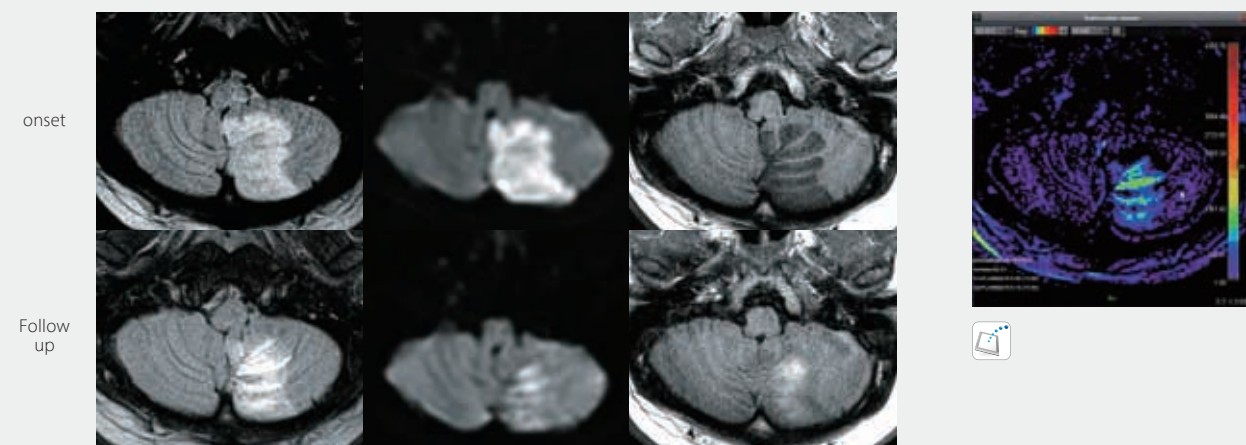
"Olea Nova Plus allows for the Realtime tissue characterization of lesions in the prostate by only changing the calculated TE value on Olea Sphere. Olea Nova+ of the prostate enhances the clinical confidence since the calculated TE values/images can be calculated retrospectively. This New Clinical feature from Canon Medical changes the way of evaluating cancers of the prostate while reducing the overall examination time."

—Dr. Xavier Alomar, Clínica Creu Blanca, Spain



Follow up solution

Outcome following cerebellar infarction with Longitudinal Analysis produced by Olea



Courtesy of Sumitomo Besshi Hospital, Japan

Cardiac Solutions

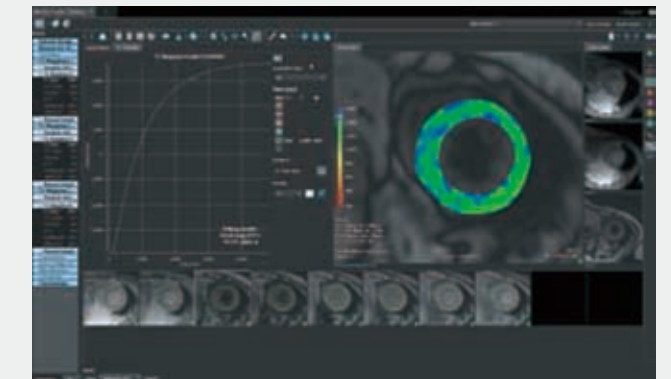
"In cardiac MRI, T1 mapping allows us to evaluate the myocardial tissue properties quantitatively. Even for diffuse lesion that are difficult to be evaluated with LGE, we can evaluate in absolute value with T1 mapping. Therefore, it contributes to the improvement of the diagnostic ability and give additional values to the image diagnosis."

—Akiyuki Kotoku M.D., Ph.D, Department of Advanced Biomedical Imaging, St. Marianna University School of Medicine, Japan

"T1 Mapping allows us to identify the pathologic area without the injection of contrast. In general, a prolonged native myocardial T1 signal is encountered in various disease states that result in edema or fibrosis, and in amyloid deposition"

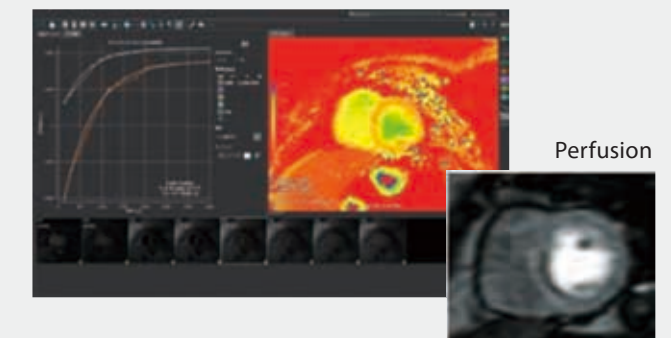
—Dr. César Nomura, Instituto do Coração, Brazil

T1 Mapping



Courtesy of St. Marianna University School of Medicine, Japan

T1 Mapping



Perfusion

Courtesy of Dr. Nomura, Instituto do Coração, Brazil

"With Wall Motion Tracking, local wall motion abnormalities associated with ischemia or cardiomyopathy can be evaluated using automatically calculated myocardial strain values. The presence of cardiac motion dyskinesia, which is an indication for cardiac resynchronization therapy, can also be detected by analyzing multiple myocardial strain curves. In addition, global strain, which is a useful index for prognostic assessment and treatment planning in patients with cardiac failure, can be calculated automatically using both short-axis and long-axis images."

—Dr. Michinobu Nagao, Department of Diagnostic Imaging and Nuclear Medicine, Tokyo Women's Medical University, Japan

WMT with k-t SPEEDER

Free breathing

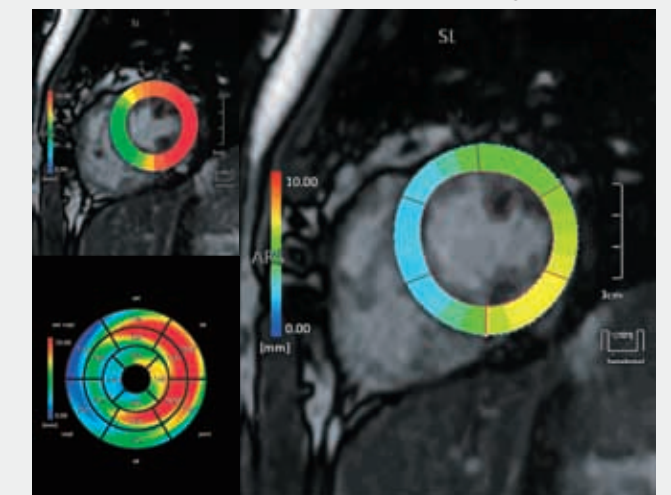
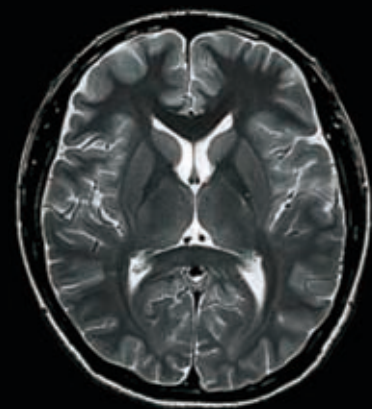
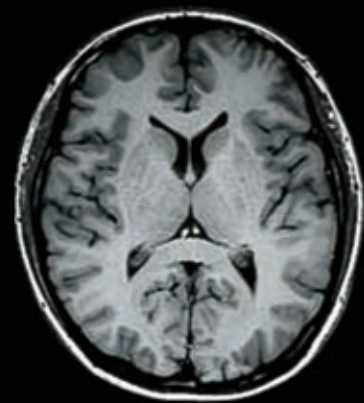


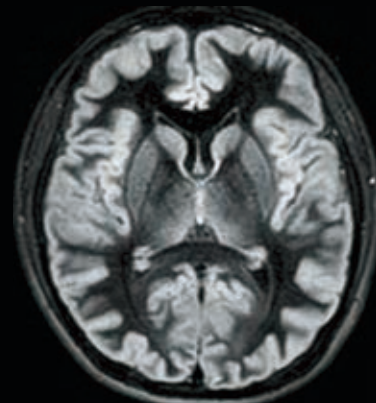
Image Gallery



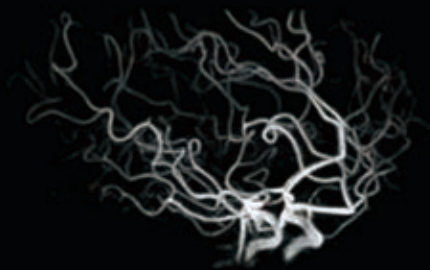
Ax T2



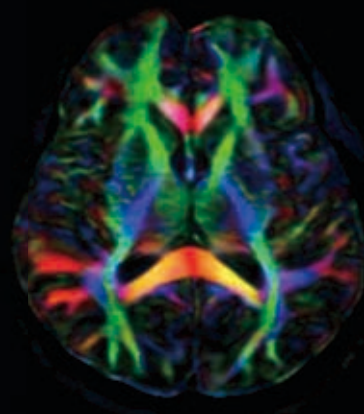
Ax T1



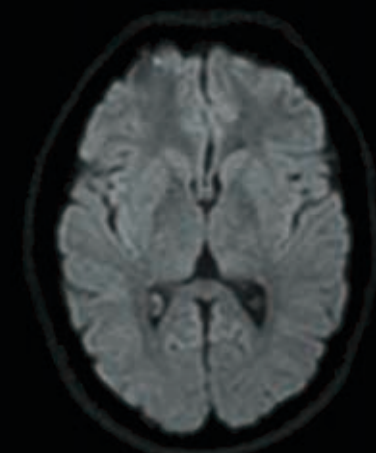
Ax DIR



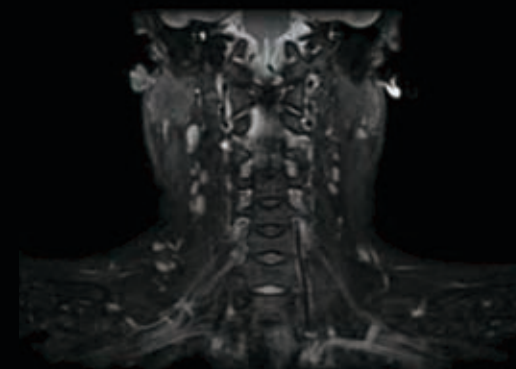
3D TOF



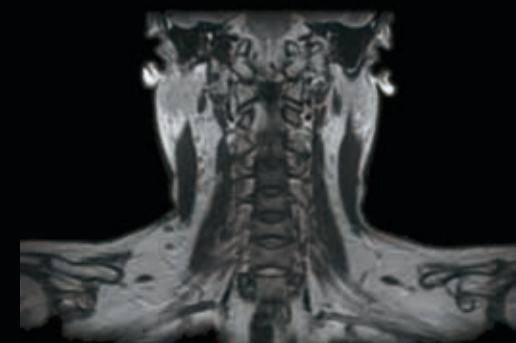
FA map



Iso DWI



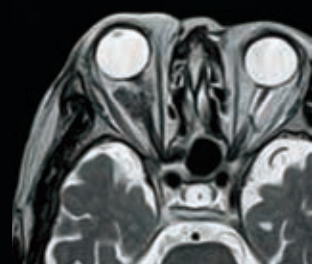
Co T2 WFS DIXON Water



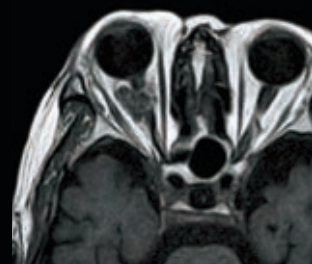
In Phase



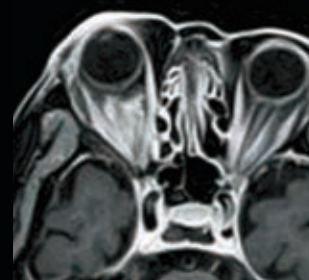
3D TOF



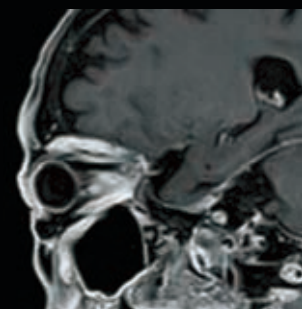
Ax T2



Ax T1



Ax 3D T1 Post contrast enhancement



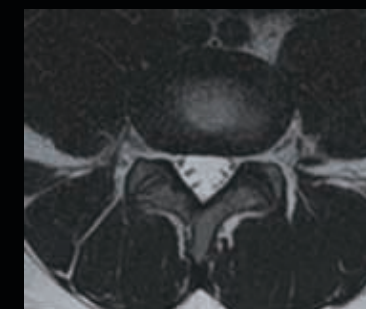
Sg MPR



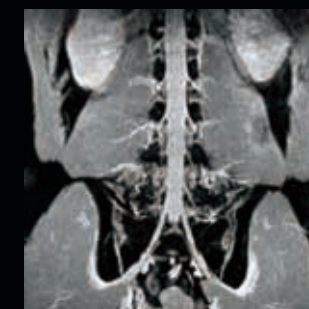
Sg T2



Sg STIR



Ax T2

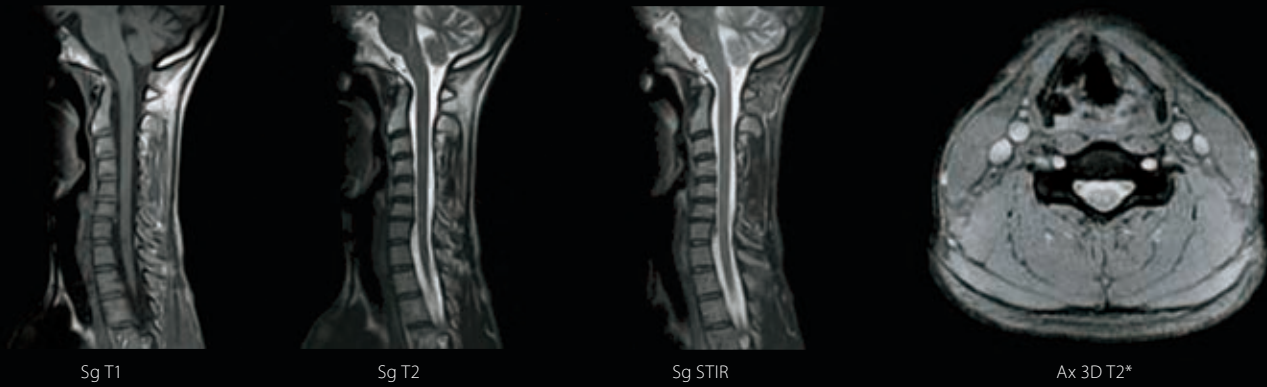


Co FFE3D T2*

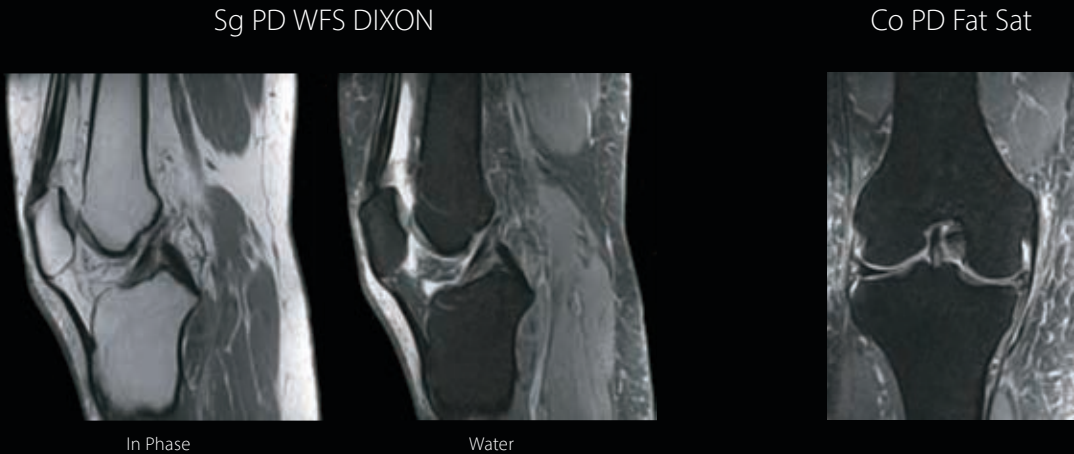
Courtesy of Dr. Hamamoto, Jichi Medical University Saitama Medical Center, Japan

Courtesy of GLE Var Ouest, Ollioules, France

Image Gallery



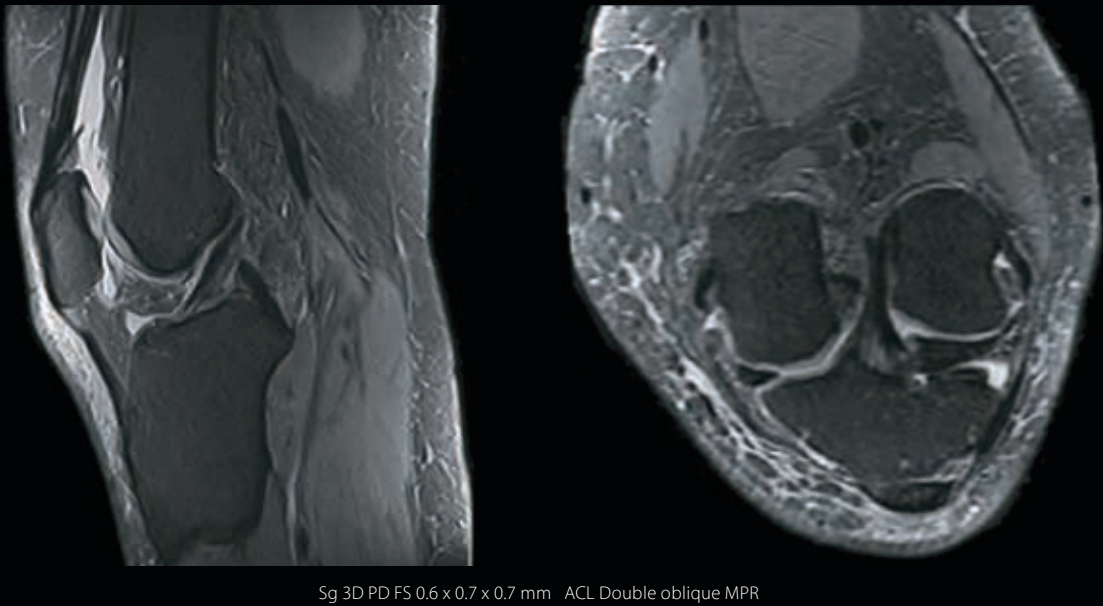
Courtesy of GIE Var Ouest, Ollioules, France



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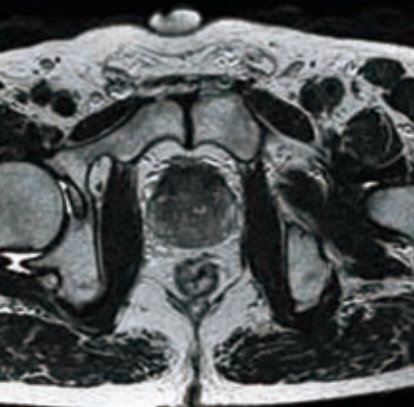


Courtesy of GIE Var Ouest, Ollioules, France

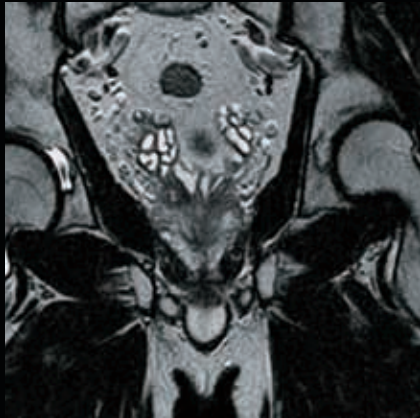


Courtesy of GIE Var Ouest, Ollioules, France

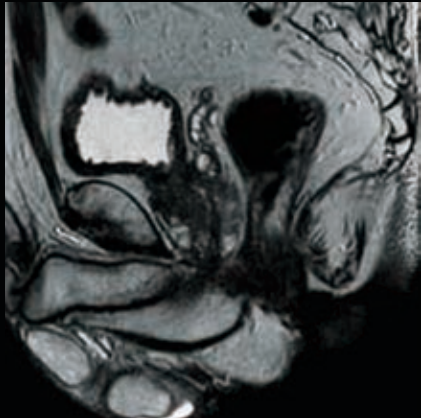
Image Gallery



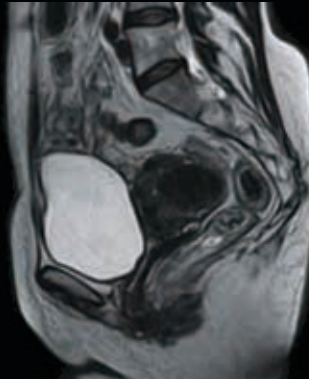
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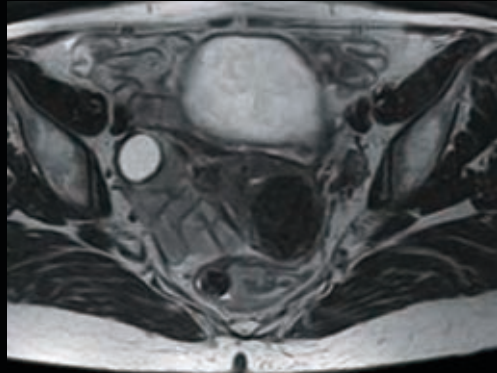
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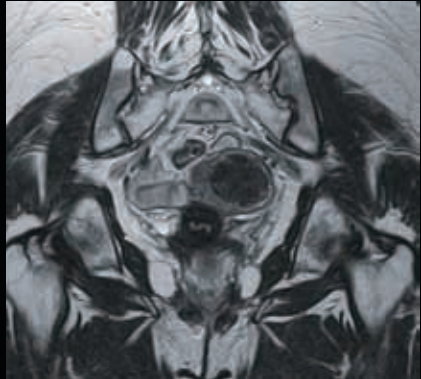
Sg T2



Sg T2



Ax T2

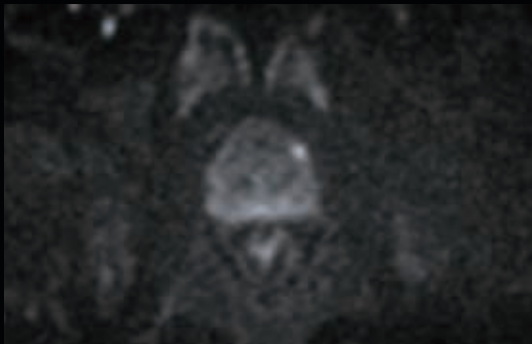


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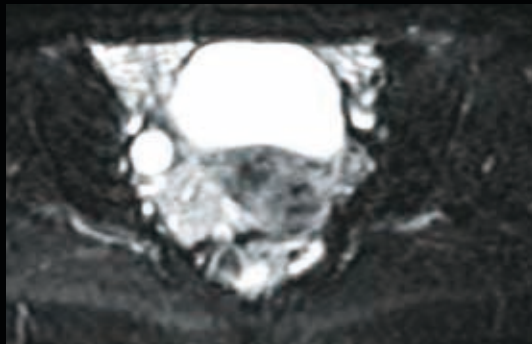
Courtesy of GIE Var Ouest, Ollioules, France



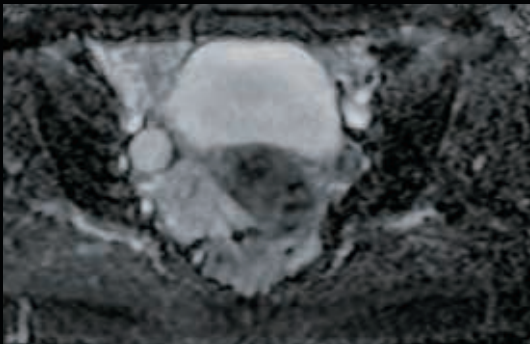
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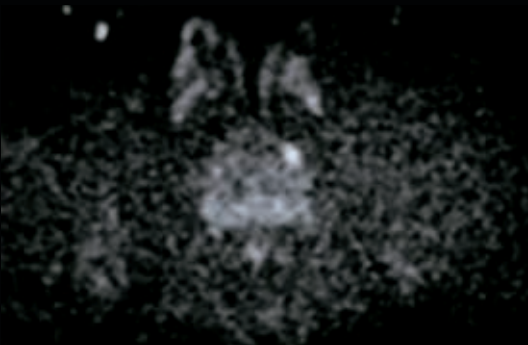
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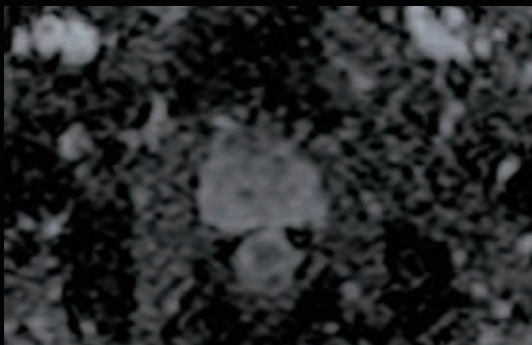
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ADC



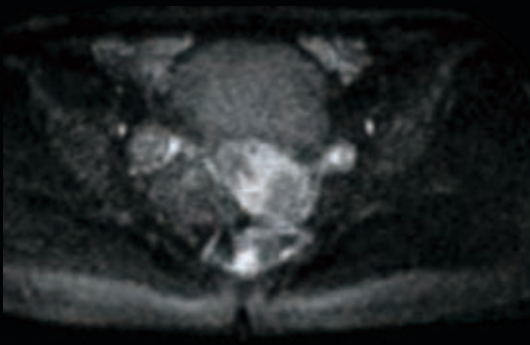
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ADC map



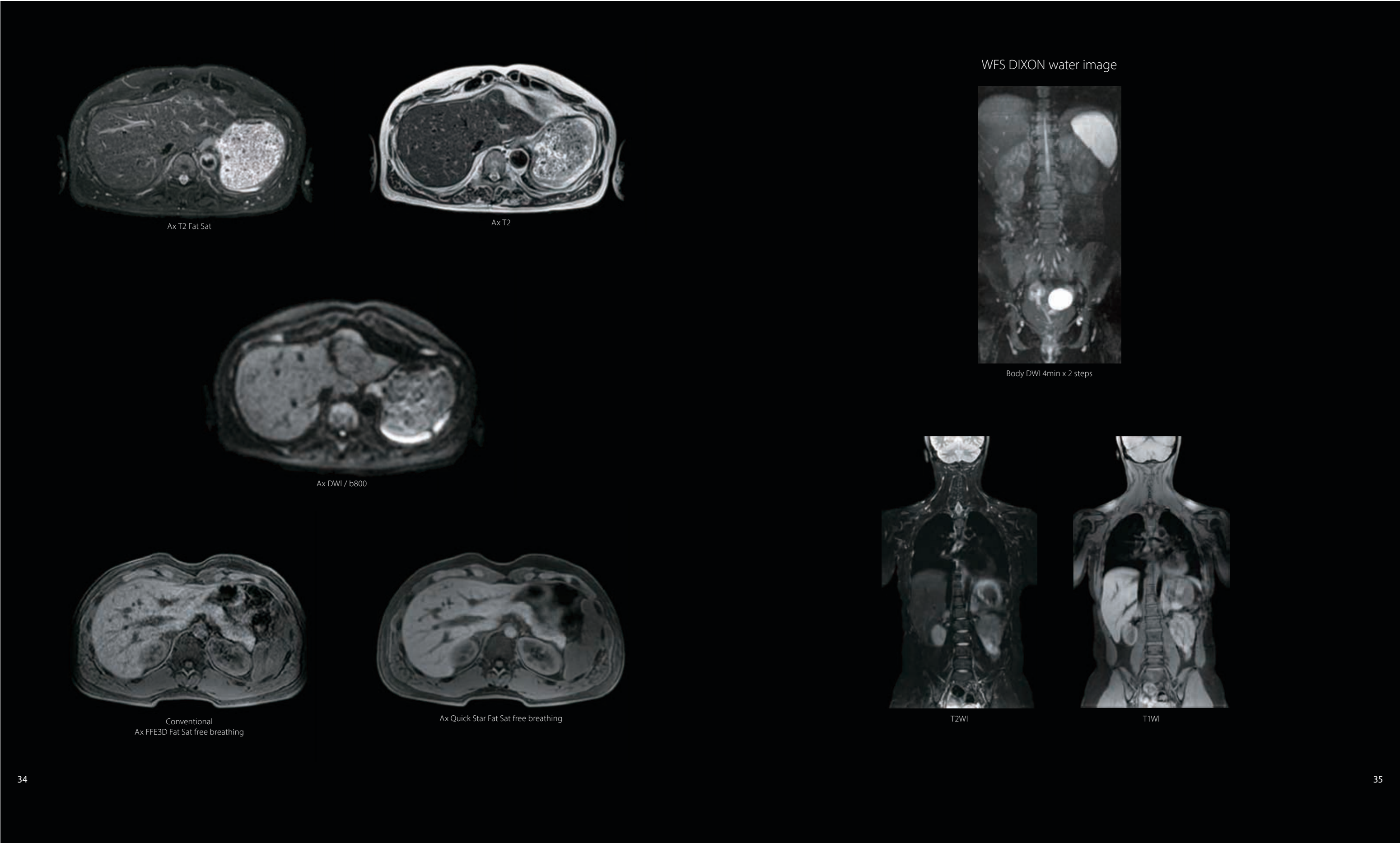
cDWI b400



b1000

Courtesy of GIE Var Ouest, Ollioules, France

Image Gallery





Delivering productivity while taking care of your patients. That is the Vantage Orian difference.

With Vantage Orian's high-end technology, you will be able to offer your referring physicians and your patients the best MRI services available today. Designed to enhance productivity, minimize running costs, provide patient comfort and deliver outstanding clinical performance, Vantage Orian offers the complete 1.5T MRI package.

With a range of new rapid scans and our EasyTech technology to reduce scan time and improve workflow, your facilities' imaging performance will meet the needs of staff and patients alike. Vantage Orian's small footprint, low power consumption features, outstanding reliability and excellent maintenance programs keep your hospital administrators happy.

A relaxed patient is key in MRI, and you can be assured that Vantage Orian takes care of this with industry-leading whisper-quiet scan sequences, 71 cm wide bore and MR Theater all designed to put patients at ease. And you can also address challenging patients with free breathing and contrast free applications, as well as ForeSee View for enhanced scan planning.

And most importantly, stable and consistent imaging performance is delivered through our unique ^{PURE}RF and Saturn Technology, increasing diagnostic confidence for both the physician and the patient.

High Productivity

- Rapid scan technologies reduce scan time
- Dockable Table assists in seamless patient handling
- Low energy consumption minimizes running costs

Patient Comfort

- MR Theater helps relax patients with a virtual immersive experience
- Pianissimo technology delivers whisper quiet scanning
- 71 cm wide bore offers the most open MRI scanning available

Clinical Confidence

- High resolution imaging with Saturn Technology
- Consistent imaging performance with ^{PURE}RF
- Advanced diagnosis with Olea/Vitrea