



CLARITY 1.5T



CLARITY 1.5T MRI Scanner

MUSIC 66X16 with
all applications

Sequoia Healthcare advanced 16 channel 1.5T MRI scanner

"Clarity 1.5T meets all your diagnostic needs with new generation quantitative tools and applications. Our advanced MUSIC technology allows for faster image acquisition and multiple exams without frequent user intervention."





MUSIC (Multi-Segment Imaging Combination) improves MR imaging with flexibility, precision, and speed. It utilizes an array of 66x16 RF channels that run simultaneously in one scan and FOV, hence enabling faster scans. You are required to choose the examination you want, without the need for coil replacement, which improves workflow and increases productivity. With MUSIC, repositioning patients for multiple exams is no longer necessary. Leveraging MUSIC's heightened precision allows us to image small lesions in a whole-body scan.



Flexibility easy to use with more adaptability and versatility. You only need to choose the examination you want without the need for coils replacement, which improves workflow and increase productivity.



Precision With excellent and pinpointed precision, MUSIC provides excellent images quality from small lesions of the whole body.



Clarity 1.5T Redefines diagnostic MRI with unparalleled performance and precision that meets diverse medical needs with exceptional clarity and accuracy. This advanced system incorporates new-generation quantitative tools and applications that elevate your diagnosis, thereby providing precise and reliable results for enhanced patient care.



RF System

- ▶ 20KW RF Amplifier
- ▶ 66x16 receive channels
- ▶ Digital RF System

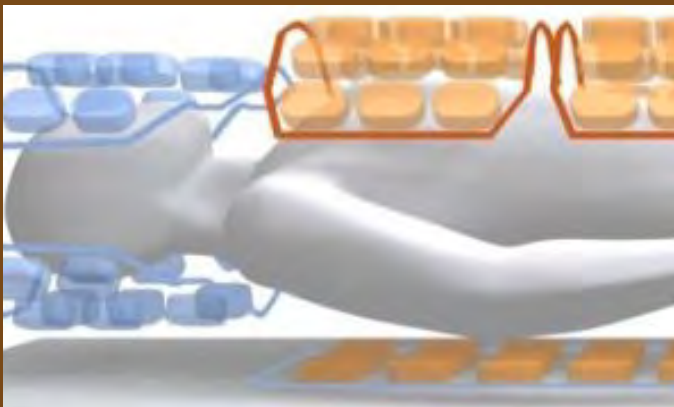


GRADIENT System

- ▶ Active shielding + Anti external electromagnetic Interference shielding
- ▶ Extremely low eddy currents (<1% of applied pulse)
- ▶ Water-cooled coil and amplifier

Gradient Strength: 35mT

Gradient Speed: 130mT/m/s



**MUSIC
(Multi-segment
Imaging
combination)**



SMART WORKFLOW (Auto Pilot Mode)

MRI workflow solution helps remove the complexity of MRI scanning. Exam time is reduced by 30%, by allowing you to drag and drop sequences to protocol. Immediate processing instead of post-processing –Inline Technology.



70% less helium short Magnet

- ▶ Shorter Magnet, 1.6M including the covers while still maintaining a 50 cm FOV
- ▶ Zero % Helium loss with our very efficient cryo-cooler
- ▶ Off center Cold head position for easier service access
- ▶ Field homogeneity (V-RMS) Typical - 0.75 ppm @ 50cmDSV
- ▶ Shimming, Passive + Active + Dynamic



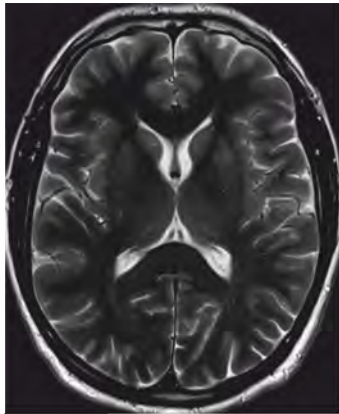
Receive Coils Phased array coils with cable less design, easy to handle.

- ▶ CNV (Head and Neck) Coil 16 channel Technology
- ▶ Knee Coil 8 channel
- ▶ Spine Coil 18 channel
- ▶ Flex Coil 4 channel
- ▶ Body Coil (60cm) 8 channel
- ▶ Shoulder Coil 8 channel
- ▶ Body Coil 12 channel

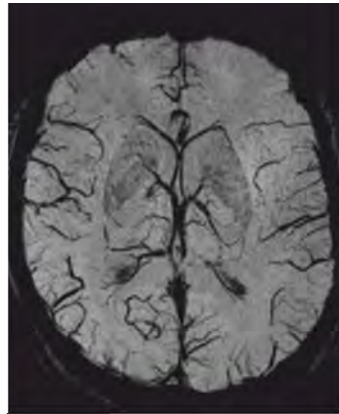


NEURO Imaging

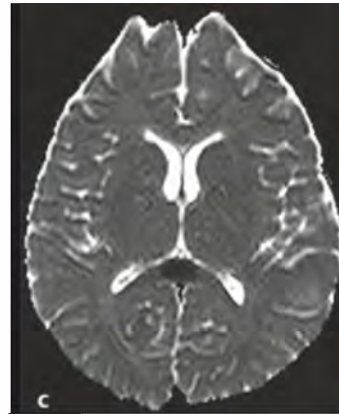
Clarity's high-quality imaging can be applied to a range of clinical neuro imaging.



T2 TRA



SWAPP



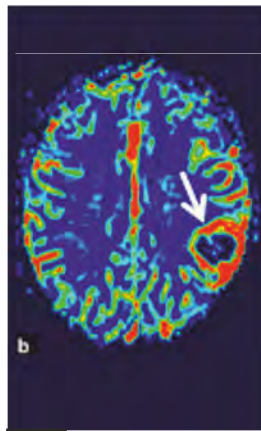
ADC



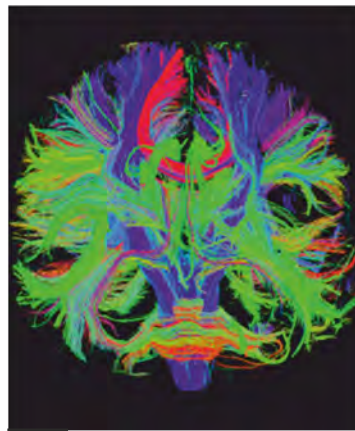
MRA



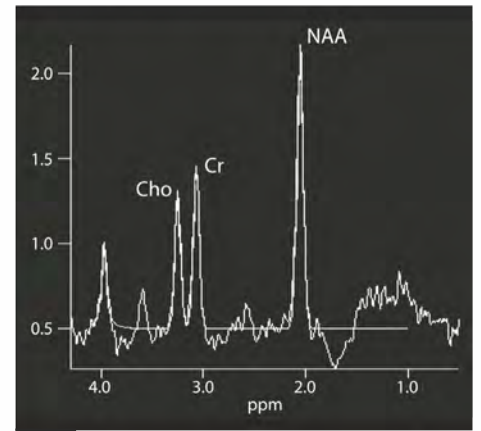
CE TI TRA



ASL



DTI



SVS

MRA/MRV, DWI with multiple b-value, ADC and eADC, SWAPP (SWI), Tornado (motion correction), ASL, DTI, Single Voxel Spectroscopy, DCE – MRI



WS 2 STEP



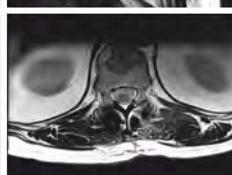
TISE SAG



T2 TSE SAG



HR TRA



T2 TSE TRA

Spine Imaging

Whole spine can be imaged, which has proved useful in the identification of occult vertebral dysplasia and in demonstration of intraspinal and paraspinal neo-plasma.

MSK Imaging

With advancements in MSK sequences, RF coils, computing technology and optimized magnet homogeneity, Clarity delivers high resolution musculoskeletal(MSK) images. This imaging technique enables you to image bone, joint and muscular soft tissue with remarkable tissue contrast.

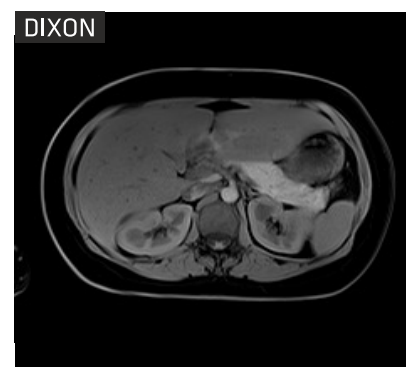
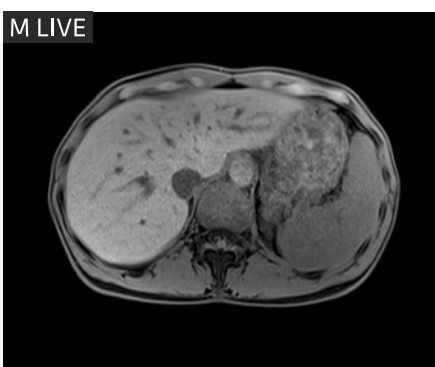
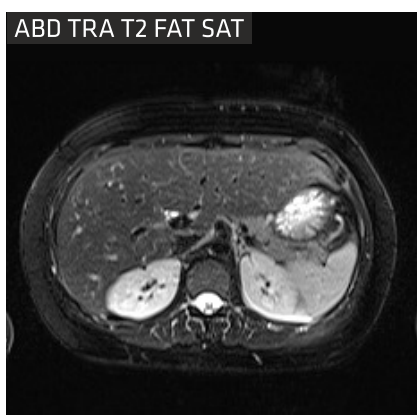
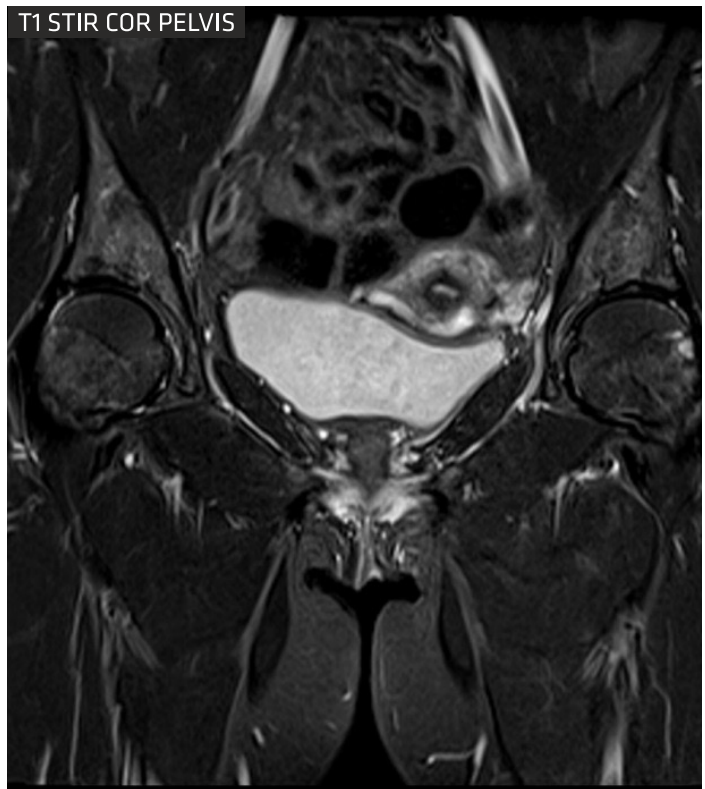
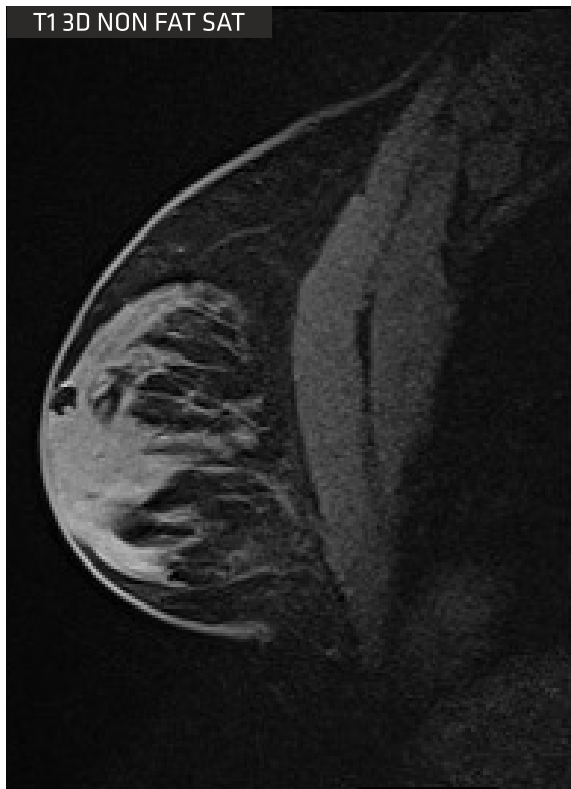


Cartilage Quantification

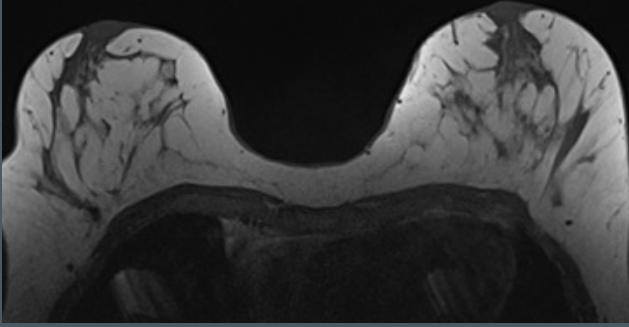
Cartilage Quantification provides quantitative assessment of cartilage composition to track the degradation of tissues in the early stages of multiple pathologies? within joints, which can't be detected by conventional imaging techniques. It allows for non-invasive measurement of collagen content.

BREAST, ABDOMEN and PELVIS Imaging

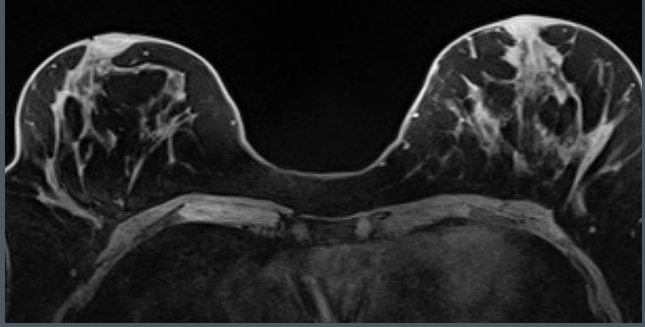
- ▶ Clarity1.5T delivers comprehensive body imaging solutions with advanced tools
- ▶ Contrast Enhanced Body Imaging for whole-abdominal coverage at high resolution in short breath-holds, with excellent fat suppression and resolution
- ▶ PDFF: (Proton Density Fat Fraction) is a non-invasive imaging method to provide quantitative measurement of hepatic fat content in only 19 seconds
- ▶ Enhance inflow IR Consistent and reliable non-contrast, free-breathing imaging of the arterial and venous vascular, such as the renal and portal vein



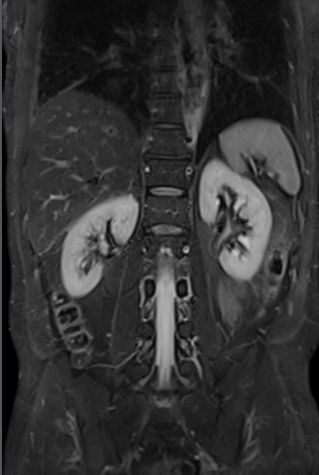
3D NON FAT SAT COR



T2 STIR COR



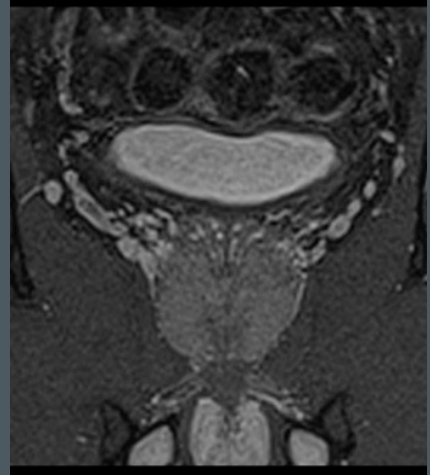
T2 COR FS



T2 TRA FS



RFOV FS PELVIS



WHOLE-BODY Imaging

T2 COR STIR WB



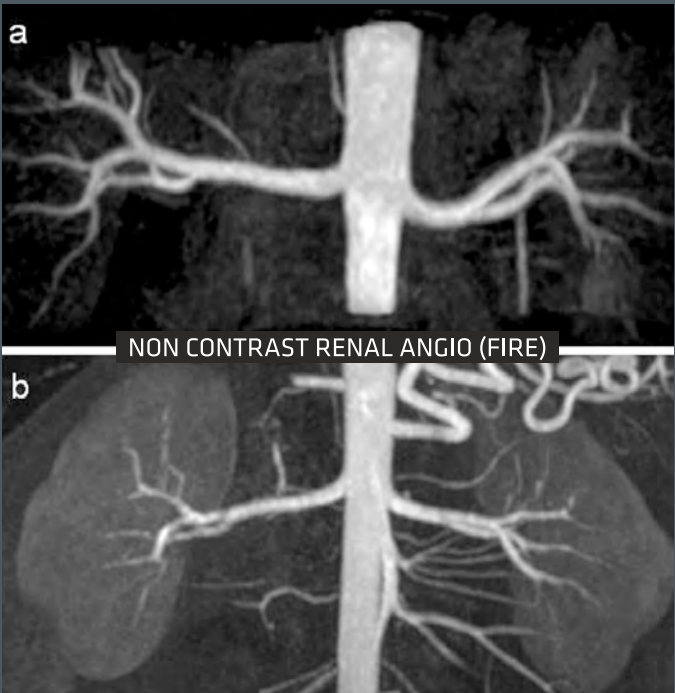
ADC WB (INVERTED)



WB IMAGING B900 DIFFUSION

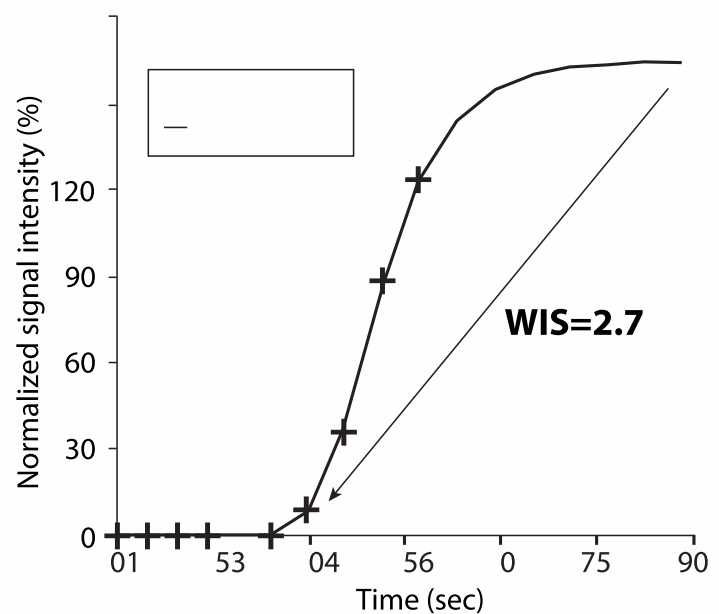
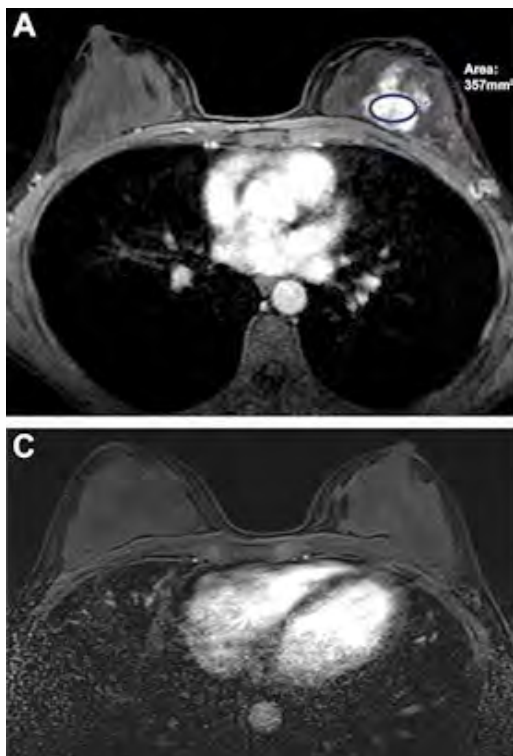
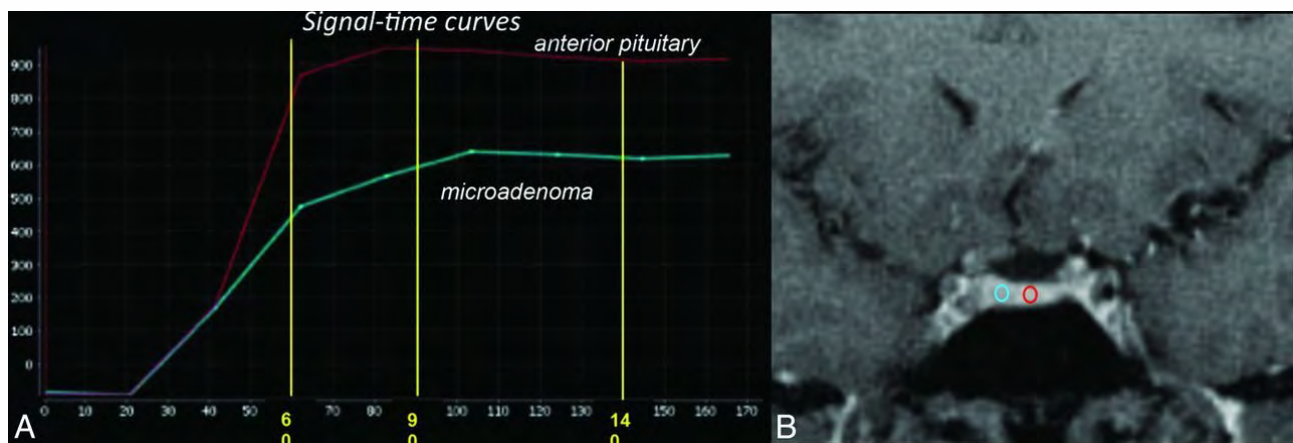


WHOLE-BODY ANGIO Imaging



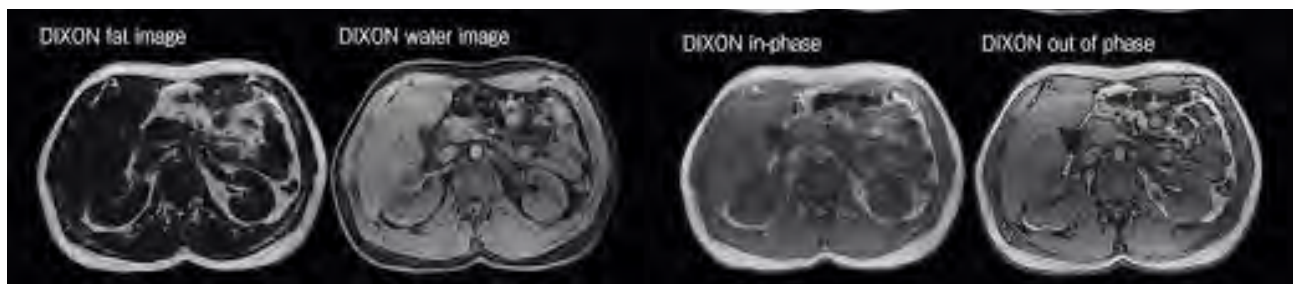
Dynamic Contrast Enhanced MRI

Dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) employs semi-quantitative analysis, including first-pass methods. Its swift scanning capability in pituitary imaging enables a more accurate depiction of changes in blood supply, thereby enhancing the detection rate of microadenomas.



Live Dixon

DIXON is a relatively new gradient-echo MR sequence that helps us visualize fat and water content in anatomical structures. It is reported to be useful in abdominal and brain imaging.



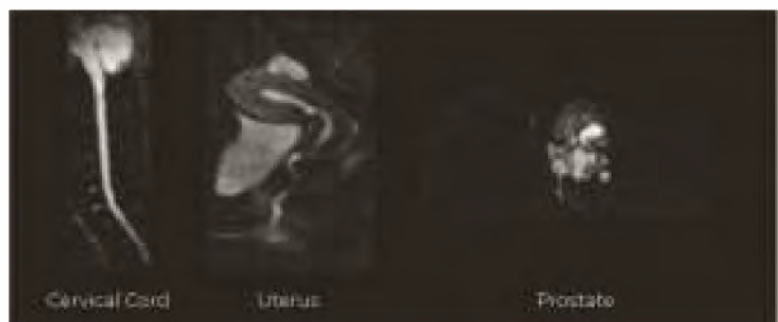
3D FIRE

Non-contrast-enhanced (NCE) renal magnetic resonance angiography (MRA) serves as an excellent alternative to the conventional contrast-enhanced approach. This method eliminates the need for ionizing radiation and avoids the injection of gadolinium, a contrast material. The advantages include minimized patient discomfort, reduced examination expenses, and the avoidance of potential risks associated with nephrogenic systemic fibrosis.



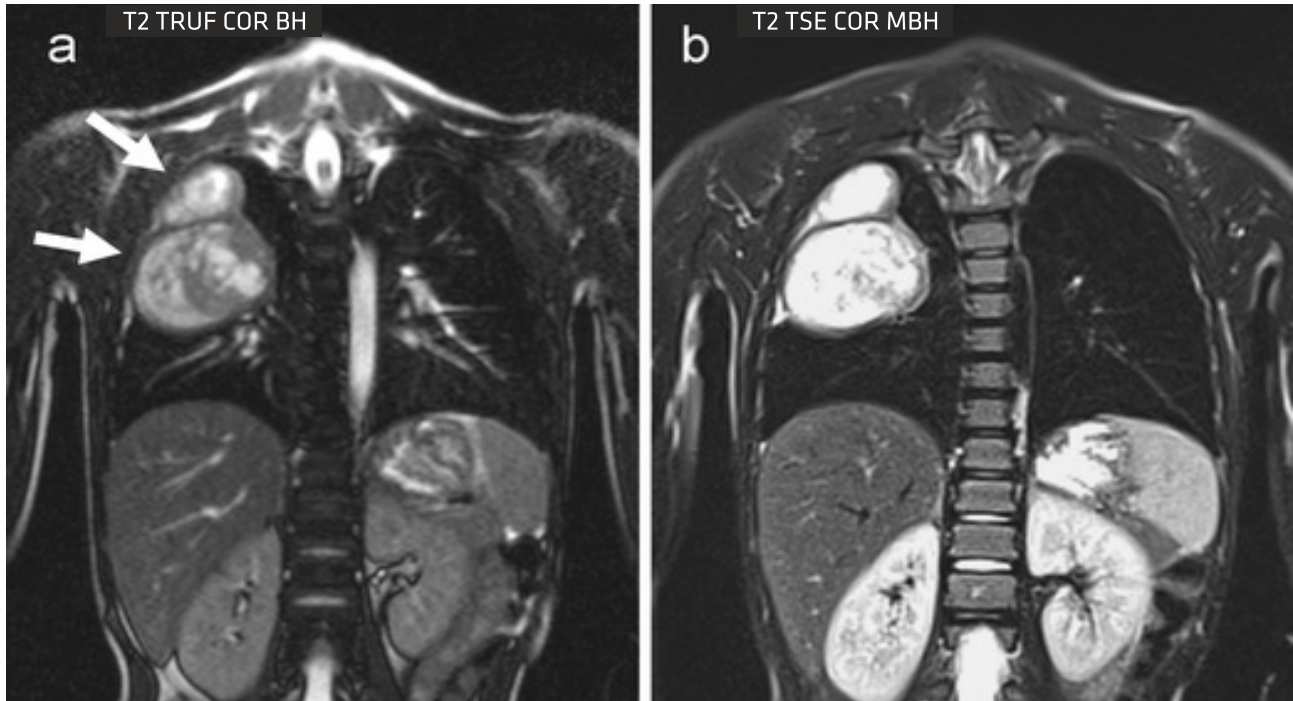
rFOV

DWI can be applied on spine, uterus and prostate, and increases clinical confidence in the diagnosis of numerous common pathologies.



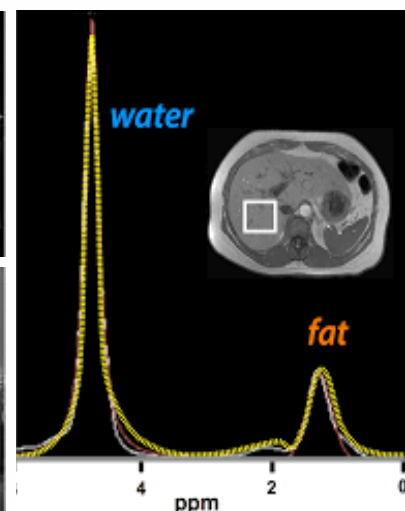
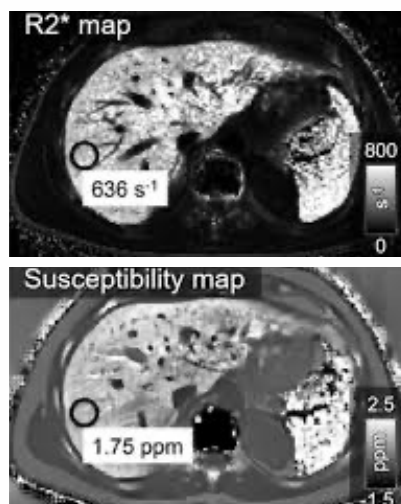
Advanced Body imaging

The Sequoia Healthcare Clarity 1.5T offers comprehensive body imaging solutions with advanced tools tailored for patients. Its Free Breathing (ARCUS) MR Imaging protocols primarily utilize either breath-holding techniques or respiratory gating to effectively minimize motion-related artifacts, ensuring clearer and more accurate imaging results.



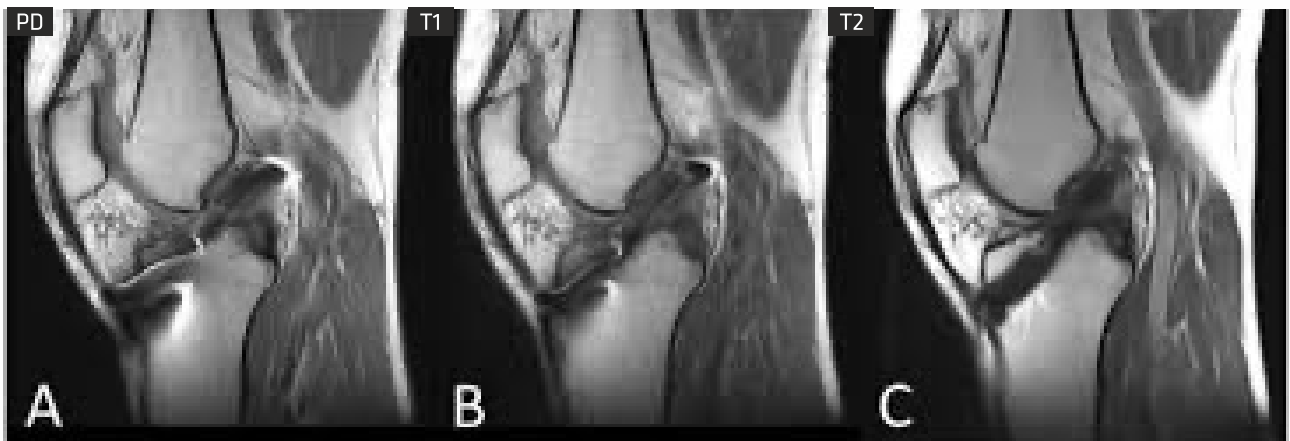
mLIVE

A visualization platform is available, granting access to sophisticated post-processing technology. Leveraging the Proton Density Fat Fraction (PDFF) method, it automatically segments and measures fat within the liver by creating quantitative fat-fraction maps.



MASSIVE Imaging (Metal Artifacts Reduction)

MASSIVE integrates various specialized techniques designed to minimize susceptibility artifacts arising from MR conditional metal implants. Utilizing high bandwidth techniques enhances the evaluation of soft tissues in patients undergoing MRI scans with MR conditional metal implants, resulting in improved imaging quality and accuracy.



3D MERGE

Specifically crafted for imaging the neck and cervical spine, this technique aims to fully eliminate pulsation artifacts.

