

TOMORROW TODAY

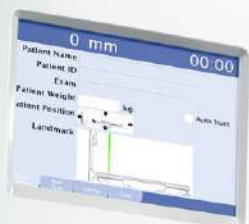
SIGNA™ Voyager

Fueled by SIGNA™Works



gehealthcare.com/mr





SIGNA
Voyager



The power of modern 1.5T engineering

Modern-day clinical challenges are more specific, but they are also more diverse. You need to be able to deliver care that is disease-specific and efficient while reducing operating costs. To meet these challenges, we've redefined what it means to have a 1.5T MR and SIGNA™ Voyager is the result. While its siting is compact, its performance goes well beyond what you would expect from a 1.5T wide-bore ergonomic system.

[Modern MR engineering for modern-day clinical challenges.](#)





OUTCLASS

Power performer

On the outside, SIGNA™ Voyager is a space-saving 1.5T, but on the inside, it's a highly calibrated MR system. Its powerful computational capabilities make it possible to perform fast exams with acceleration techniques, like HyperWorks, that improve workflow.

- Industry-best magnet homogeneity for a 1.5T wide-bore system.
- Fast performance for quick exams with the Ultra High Efficiency Gradient System.
- Total Digital Imaging (TDI) contributes to 25 percent improved SNR for sharper image resolution.

A total digital approach to imaging

Total Digital Imaging (TDI) offers advances in imaging through its unique technology. Digital Surround Technology and Direct Digital Interface take full advantage of your system by digitizing every input from both the high-density surface coils and the deep signal penetration of an integrated RF body coil. These technologies, along with eMode, enable faster imaging with greater clarity and 25 percent improved SNR.

I Digital Surround Technology (DST)

Simultaneous reception of signals from the QD body coil and surface coils to give you rich image quality.

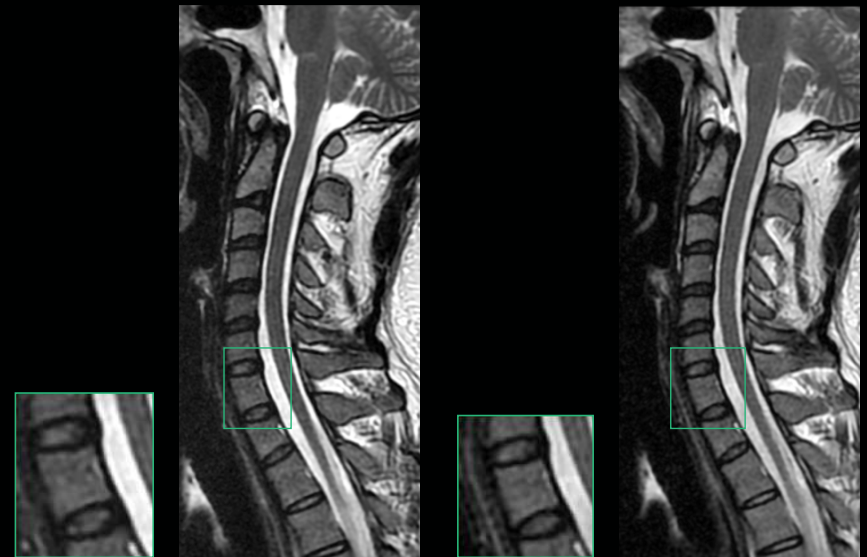
I Direct Digital Interface

Digitizing every input from up to 65 channels creates sharper images with a higher signal-to-noise ratio.

I eMode Technology

Ultra-fast coil switching times allow you to image tissues that are hard to see with MR using zero TE techniques.

Up to 65 digitized channels for high image quality



Without DST

With DST

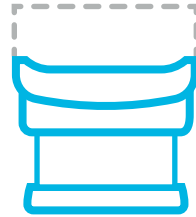
Sagittal T2 FSE
288 x 224, 3 mm slice



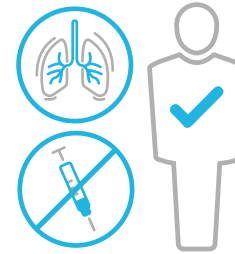
Widen your patients' comfort zone

From making the patient table more accessible to reducing noise levels and offering needle-free applications during exams, SIGNA™ Voyager elevates patient comfort across the entire MR experience. It's also roomier with a wide, 70 cm bore and the Comfort Plus Table, which is also lower to the ground.

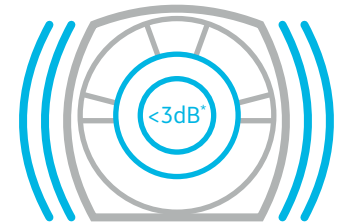
Give your patients an MR experience they can take comfort in.



Extra-wide, low-height table gives patients easy access



Free-breathing and needle-free applications improve the patient experience



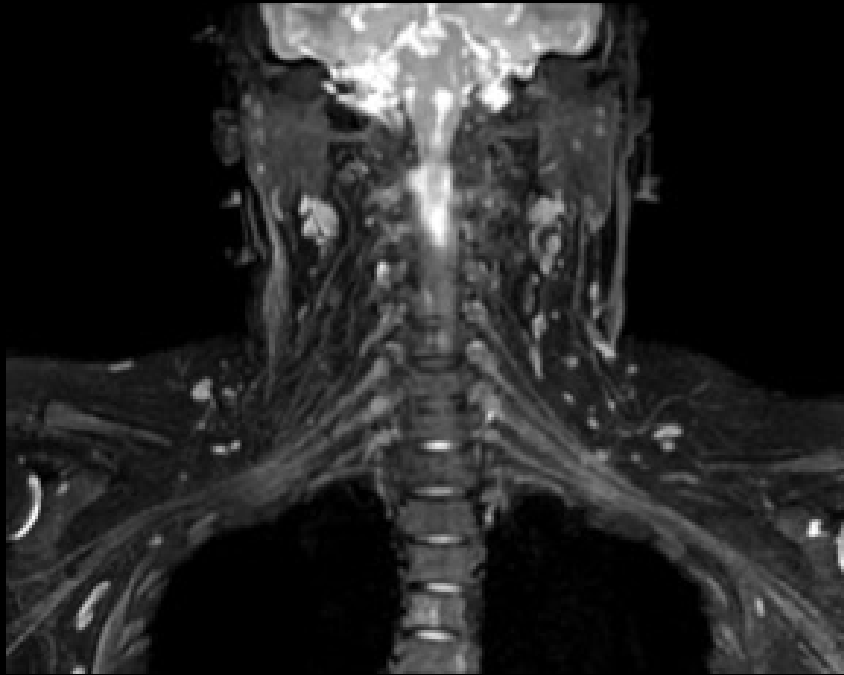
SilentScan reduces noise to near ambient levels (< 3 dB*)

* Above ambient levels; sound measured at the isocenter of the bore

Clarity at the new speed of MR

Imaging speed plays an important role in productivity and throughput. SIGNA™ Voyager includes three accelerating techniques, HyperBand, HyperSense and HyperCube.

Provides astonishing images with remarkable speed during routine exam slots so the patient spends less time in the bore.



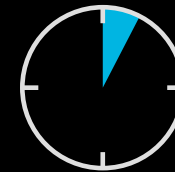
Coronal HyperCube T2 Flex with HyperSense
Brachial Plexus
22 mm MIP
Water image
3:47 min

HyperBand



Excites multiple slices during a single acquisition to accelerate scan speed

HyperSense



Utilizes proprietary compressed sensing technology for up to 50 percent reduction in scan time while maintaining resolution*

HyperCube



Selective excitation for higher spatial resolutions and reduced scan times

* Compared to conventional imaging

Fueling the future of MR

SIGNA™Works redefines productivity and drives your imaging to the next level with the standard applications included in BodyWorks, CVWorks, NeuroWorks, OncoWorks, OrthoWorks and PaedWorks. Additional innovative applications allow you to expand your areas of expertise even further with HyperWorks, ImageWorks, SilentWorks and ViosWorks.

This groundbreaking application portfolio enhances the capabilities of SIGNA™ Voyager. You will experience more accurate and consistent image quality as well as reduced scan times and faster throughput. In addition to clinical and operational improvements, you can expect higher patient satisfaction with silent, free-breathing, contrast-free and needle-free applications.

[Learn more about SIGNA™Works](#) 



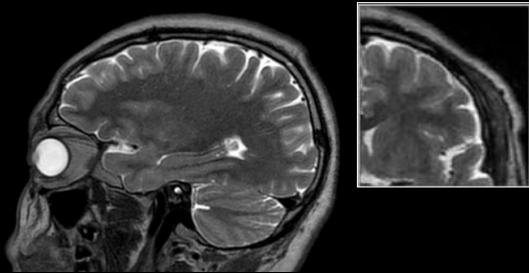
NeuroWorks

Offering neuro applications from automated positioning to post-processing and fast imaging with great diagnostic value.

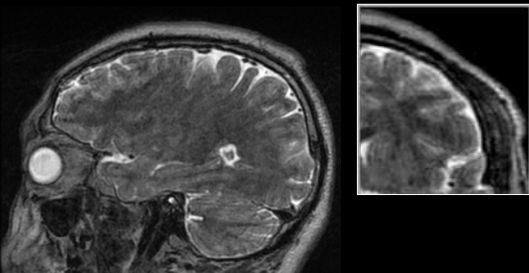
Use an imaging option that delivers prospective motion correction for 3D brain imaging with PROMO.

■ Motion-correction 3D imaging is great for non-sedated patients with 3D PROMO.

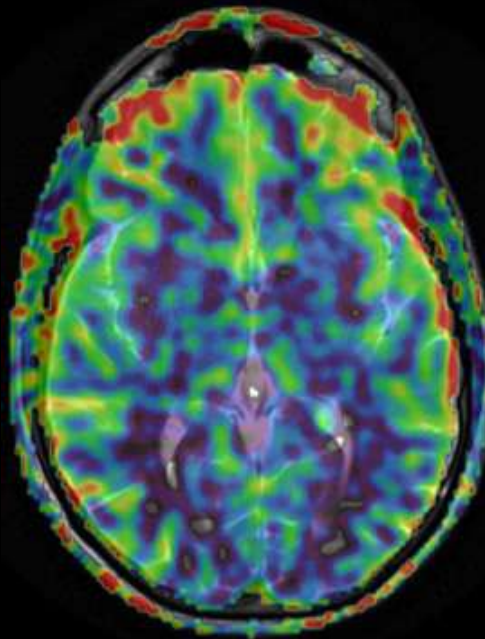
■ View quantitative cerebral blood flow volumes (CBF) with 3D Arterial Spin Labeling (ASL).



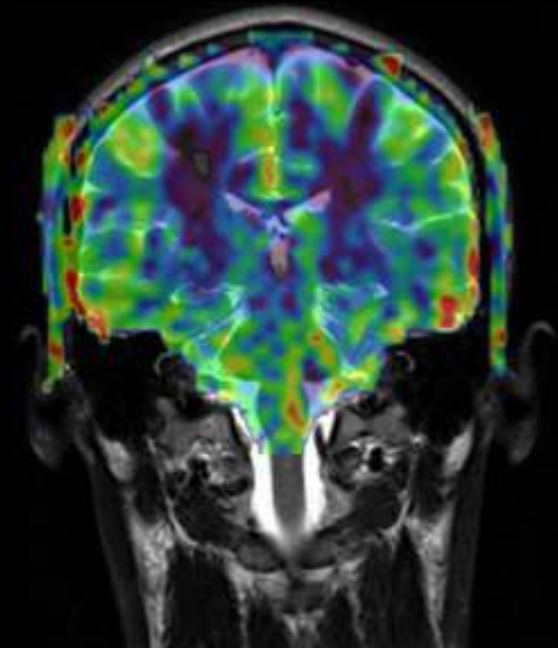
T2 Cube with PROMO



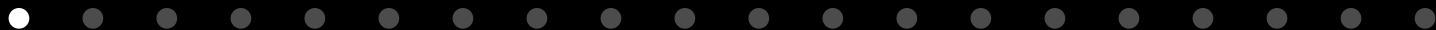
T2 Cube without PROMO



3D ASL fused with Axial T2 PROPELLER



3D ASL fused with Coronal T2 PROPELLER

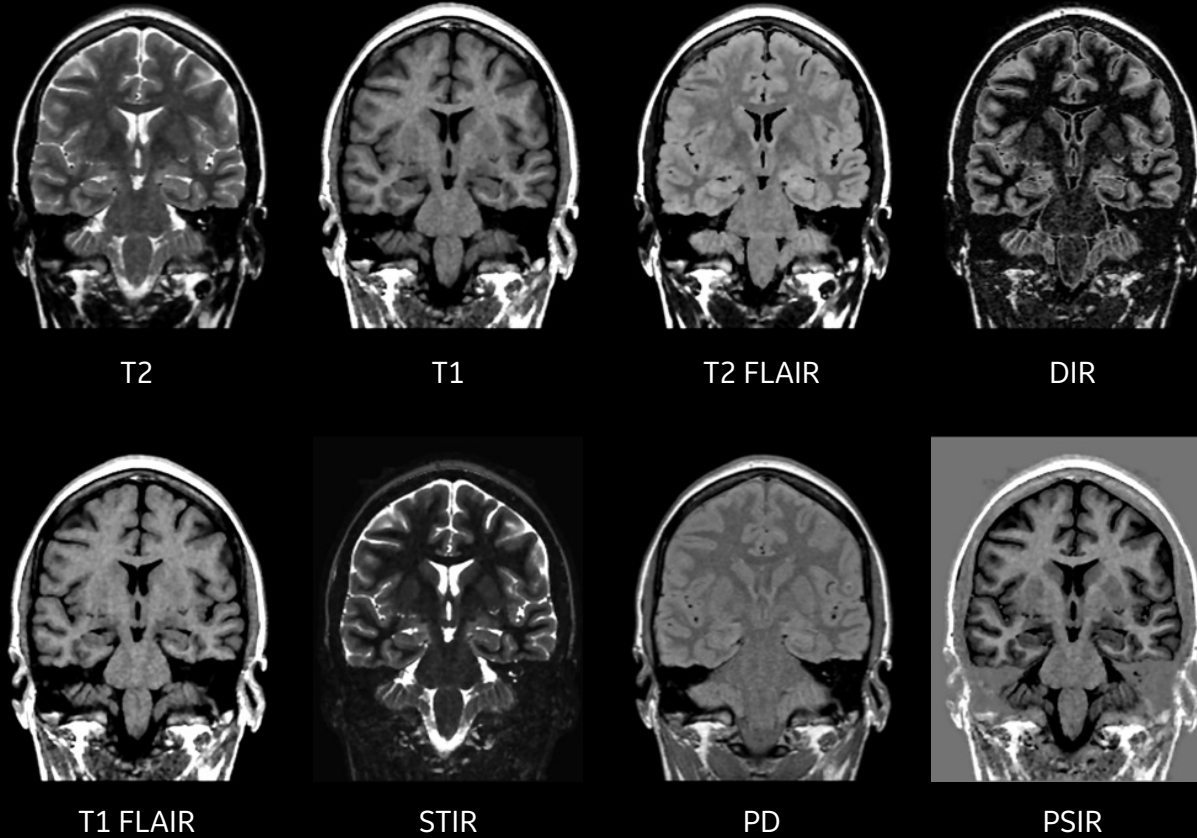


NeuroWorks

Deliver multiple contrasts in a single scan with MAGiC, reducing scan time by up to 50 percent compared to acquiring all contrasts separately.

▮ Scans up to eight contrasts in one five-and-a-half-minute scan.

▮ Allows you to change the contrast after acquisition.



Coronal MAGiC
3 mm, 5:40 min

OrthoWorks

This extensive library of imaging techniques enables you to image bone, joint and soft tissue with remarkable tissue contrast.

See robust, homogenous fat/water separation even in difficult-to-scan areas using a 2-point Dixon technique with Fast Spin Echo (FSE) Flex.

Generates two series of images in a single scan, one with fat suppression and one without.

Enable imaging around MR Conditional implants with MAVRIC SL.



Sagittal PD Flex
Water image



Sagittal T1 FSE
Small flex coil



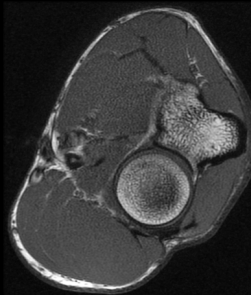
Sagittal PD FSE
Large flex coil



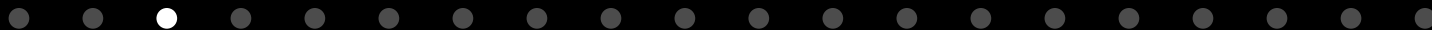
Sagittal PD with MAVRIC SL for
MR Conditional metal implant
Large flex coil



Sagittal PD Flex
In-phase image



Axial T1 FSE
Small flex coil



OrthoWorks

Achieve shorter TE's and improved motion correction, allowing for true T1 and PD contrast imaging with PROPELLER MB.

■ Motion artifact suppression with real-time tracing and no sensor needed.

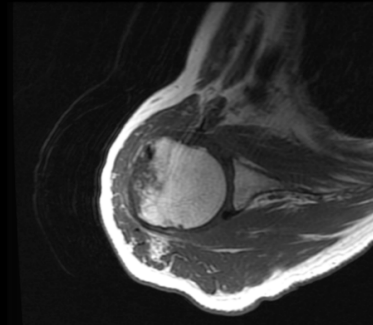


Coronal T1 FSE

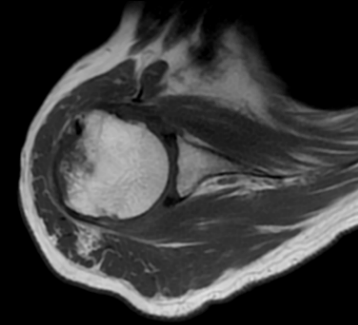


Coronal T2 FSE Flex

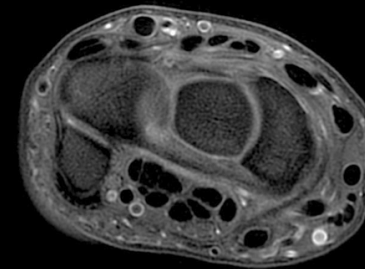
16 ch hand/wrist coil



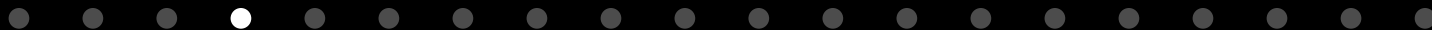
Axial T1 FSE



Motion-correction with Axial T1 PROPELLER



Motion-correction with Axial PD PROPELLER

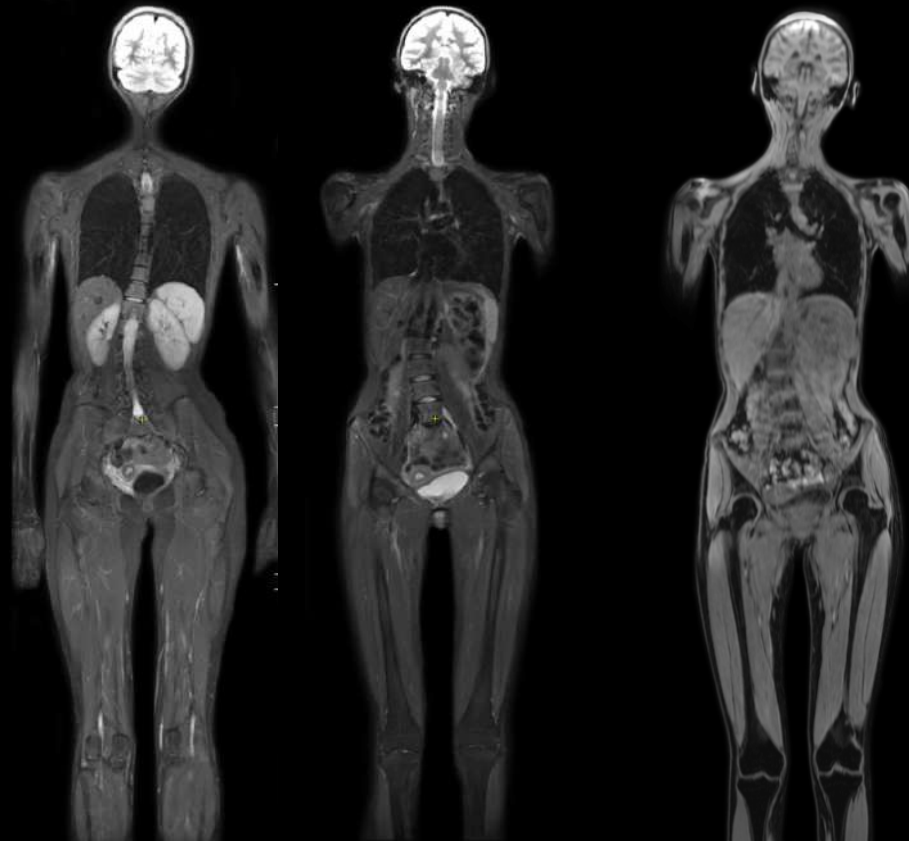


BodyWorks

Images whole-body, abdominal and pelvic anatomy with speed and flexibility.

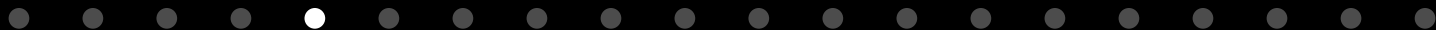
■ Body imaging with the flexibility to adapt to different patient types.

■ Less scans needed with large FOV.



Coronal STIR

Axial T1 3D LAVA Flex
Coronal reformat



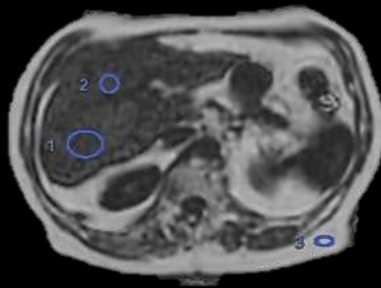
BodyWorks

Image the entire liver, prostate or breast in less than three-second intervals with DISCO.

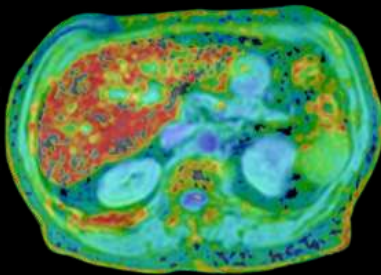
3D images meet the challenge of capturing multiple dynamic phases over time.

Compatible with Auto Navigator for free-breathing dynamic scans.

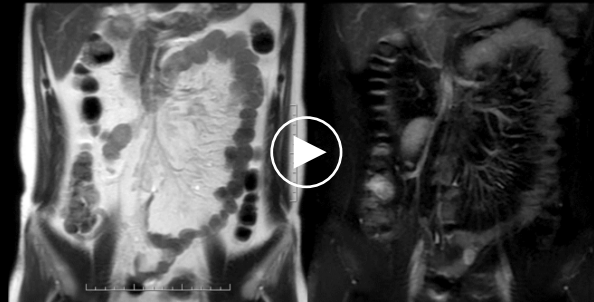
Measure fat in the liver by generating quantitative triglyceride fat-fraction maps with IDEAL IQ.



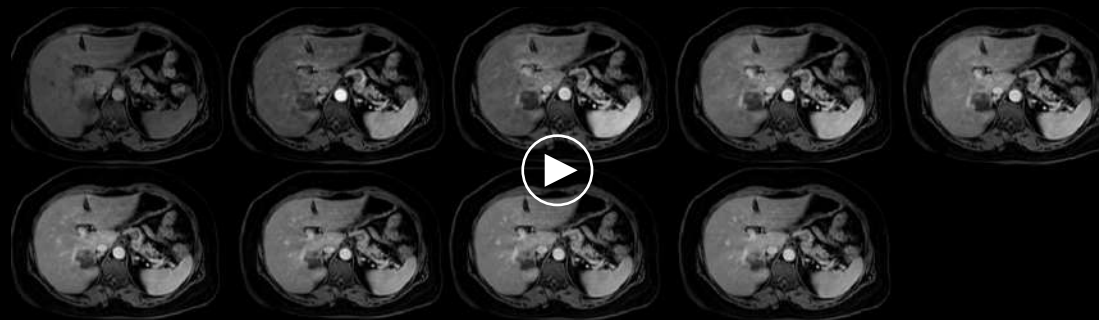
IDEAL IQ
Fat Fraction
FOV 44, 8 mm



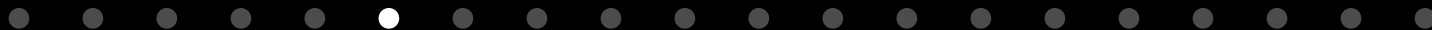
T2* Map



Coronal T2 SSFSE Multi-phase



Dynamic Axial 3D DISCO Flex
Free-breathing with Auto Navigator
16 sec/phase, 2:10 min total time

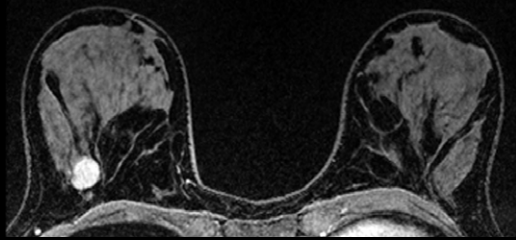


BodyWorks - Women's health imaging

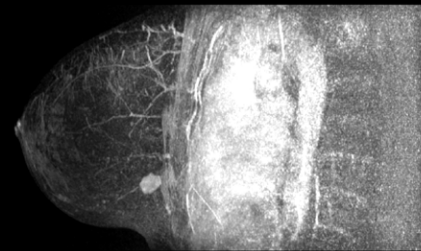
Enables fast, high-resolution, quantitative and personalized MR for women's health.

■ Generate extreme, high resolution 3D dynamic imaging with DISCO.

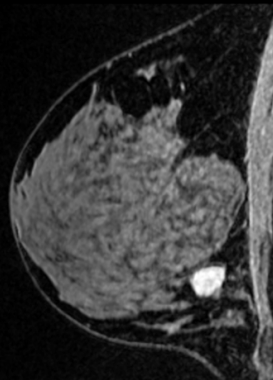
Image the entire breast in less than three-second intervals with DISCO.



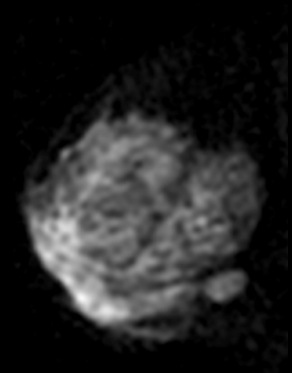
Axial DISCO Water image and sagittal reformat
0.7 x 0.7 x 1.0 mm
61 sec/phase



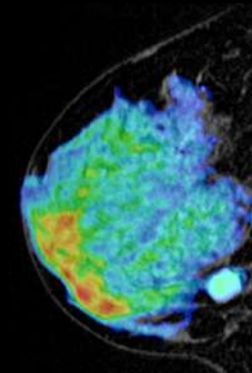
Sagittal 3D MIP
Subtracted DISCO phase



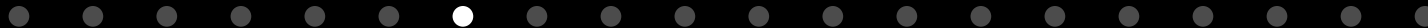
Sagittal reformat



Sagittal FOCUS DWI
b800, 2.6 x 2.6 x 4.0 mm
3:32 min



Sagittal DISCO reformat fused with Sagittal FOCUS DWI

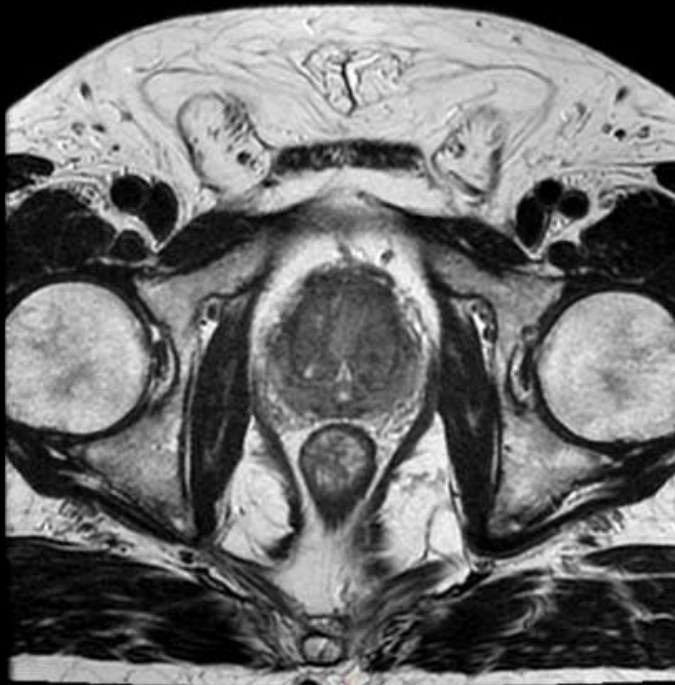


BodyWorks - Men's health imaging

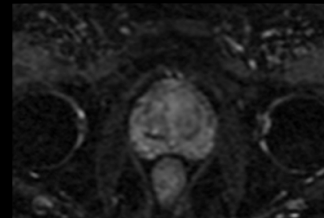
Quantitative, multi-parametric and high-resolution prostate MR imaging is fast and customized for men's health.

■ Small FOV diffusion imaging of dedicated anatomy, such as prostate imaging, for increased resolution with FOCUS DWI.

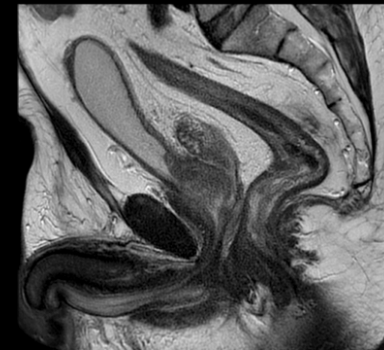
■ Measure, locate and score lesions according to PI-RADS™ v2 guidelines with PROView post-processing.



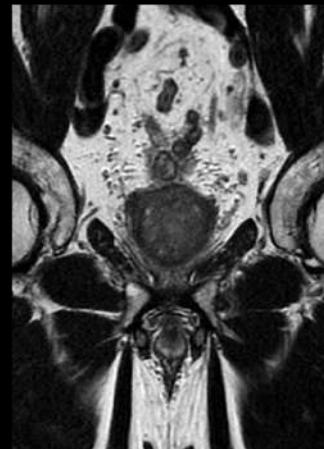
Axial T2 FSE
256 x 224
FOV 24
3 mm 2:39 min



Axial FOCUS DWI
b600, FOV 24 x 12
4 mm, 3:06 min



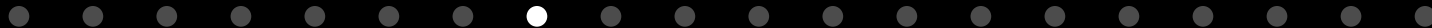
Sagittal T2 PROPELLER
352 x 352, FOV 24
3 mm, 2:54 min



Coronal T2 FSE
288 x 224, FOV 24
3 mm, 3:09 min



Axial 3D DISCO
256 x 224, FOV 34, 3 mm
13 Phases, 5:15 min

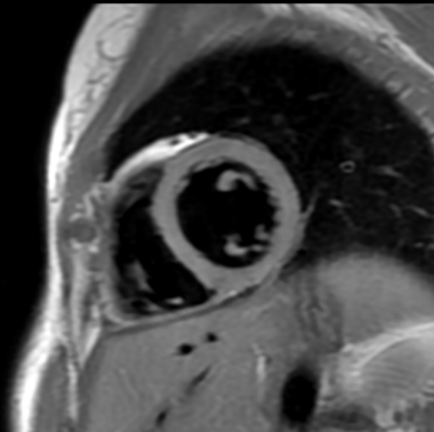


CVWorks

Intuitive cardiac techniques that adapt to different patient types. Assess morphology, flow, function and tissue viability and gain crucial insights into vascular structure and flow dynamics.

Assess the heart's anatomy and function by providing excellent tissue contrast between blood pool, myocardium and valves with 2D FIESTA CINE.

■ Suppress the signal of flowing blood for faster scanning during free-breathing or within a single breath-hold with Black Blood SS FSE to reduce repeats.



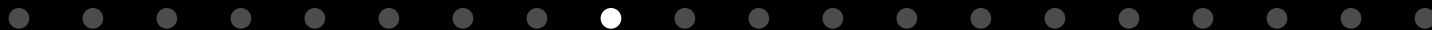
Short Axis T1 Black Blood



FIESTA Cine, Short Axis
256 x 192
FOV 36, 8 mm
0:20 min



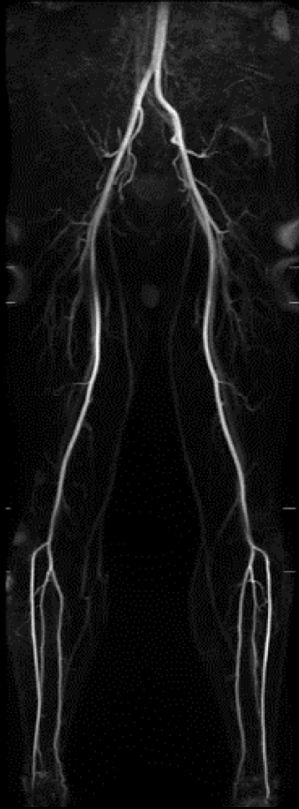
FIESTA Cine, 4 Chamber
128 x 224
FOV 25, 8 mm
0:14 min



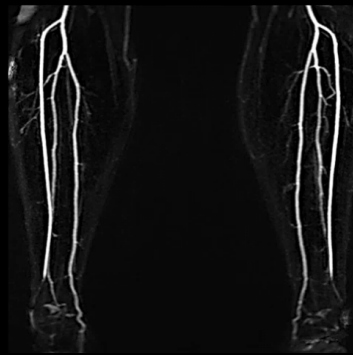
CVWorks

The Inhance Suite improves your workflow with easy setup by allowing visualization of blood flow in diverse anatomies with an advanced array of powerful pulse sequences – with no need for gadolinium. The suite includes 3D IFIR, 3D Velocity, 2D InFlow and 3D DeltaFlow.

Visualize blood flow in diverse anatomies without gadolinium with Inhance DeltaFlow.



3D DeltaFlow
3 stations



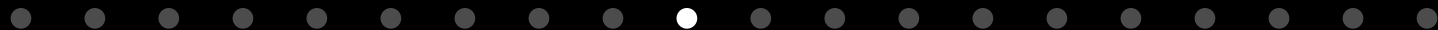
Non-contrast 3D Inhance
4:41 min



Non-contrast IFIR
3:58 min



Portal MRA
Non-contrast Inhance IFIR



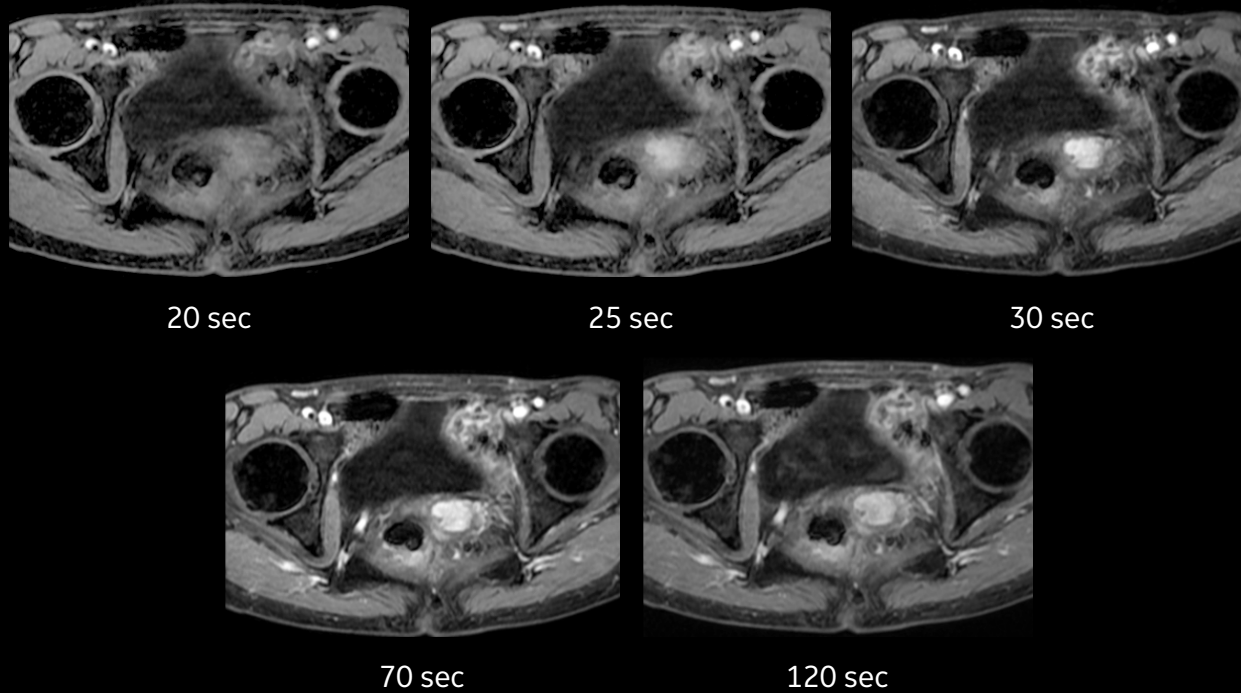
OncoWorks

A collection of techniques for capturing anatomic and morphologic data to enable oncological assessment of anatomy.

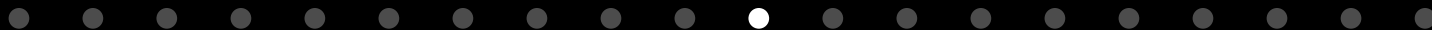
Dynamic Scan Optimization (DISCO) drastically reduces scan time and uses novel techniques to disperse motion and view sharing to improve temporal resolution.

3D images meet the challenges of capturing multiple dynamic phases over time with DISCO.

Compatible with Auto Navigator for free-breathing dynamic scans.



Axial DISCO DCE-MRI
Phase 4, 5, 6, 14 and 24
5 sec temporal resolution



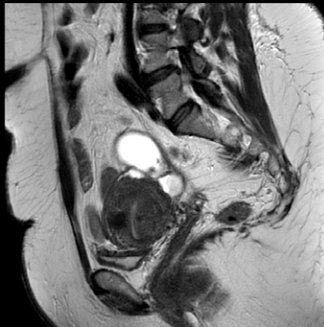
OncoWorks

Increase resolution using FOCUS DWI, a highly efficient diffusion technique.

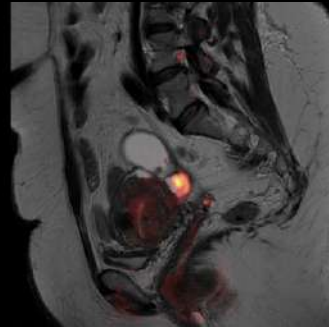
Provides a higher spatial resolution diffusion via smaller FOV.

■ Reduces motion contamination outside the region of interest with FOCUS DWI.

■ Reduces distortion in challenging areas in any plane.

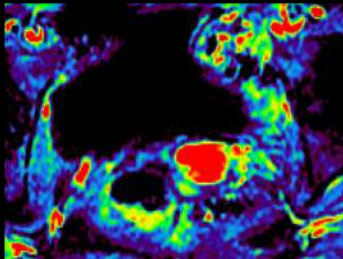


Sagittal T2 PROPELLER



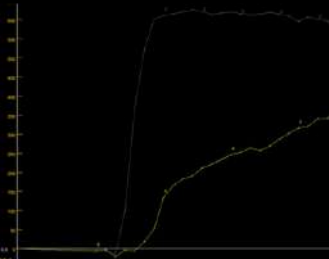
Sagittal FOCUS DWI
b1000

Female pelvis

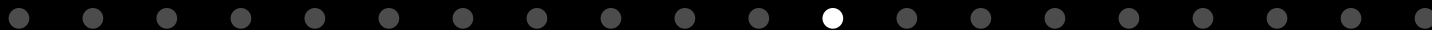


Axial DISCO

Positive Enhancement Integral (PEI) map
with signal intensity over time curves



DWI b1000



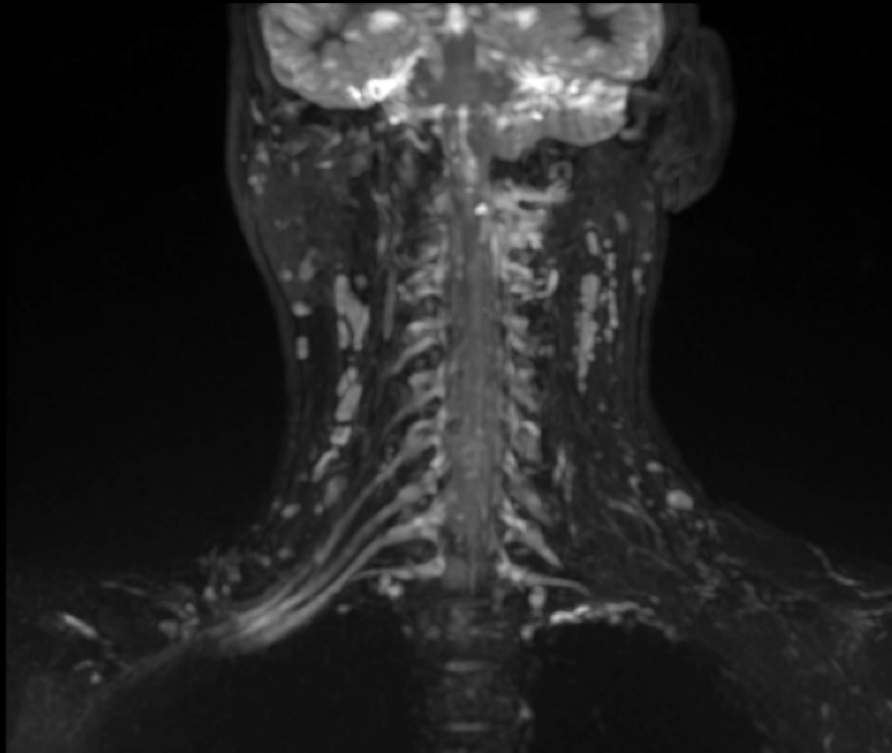
HyperWorks

Innovative applications that improve image quality, efficiency and workflow to help you perform better than ever before.

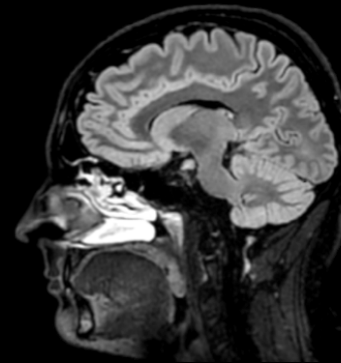
Accelerate 3D scan times with HyperSense, including Cube and time-of-flight (TOF).

Reduce scan times by up to 50 percent.

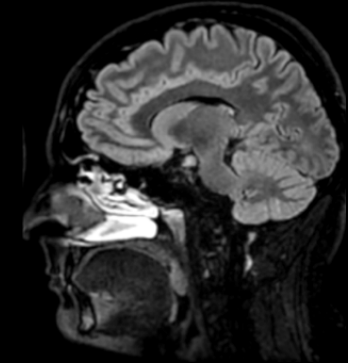
Can be used in 88 percent of all clinical procedures.



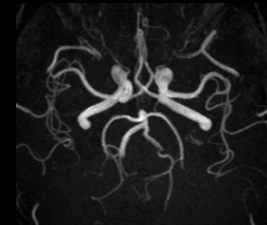
Coronal Cube STIR HyperSense
3:19 min



Sagittal Cube FLAIR
without HyperSense
5:12 min



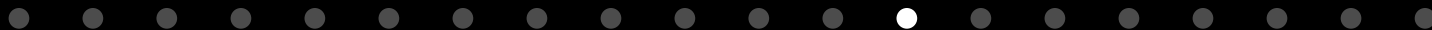
Sagittal Cube FLAIR
With HyperSense
3:41 min



3D TOF without
HyperSense
4:34 min



3D TOF with
HyperSense
3:18 min



HyperWorks

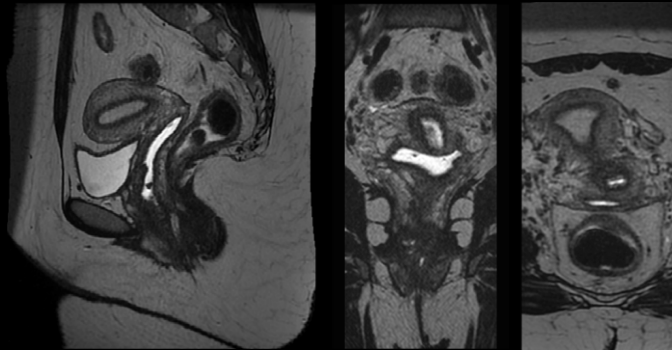
Expand the capabilities of 3D imaging by reducing scan times and minimizing artifacts with HyperCube.

Reduce scan times even further by simultaneously using HyperSense and HyperCube.

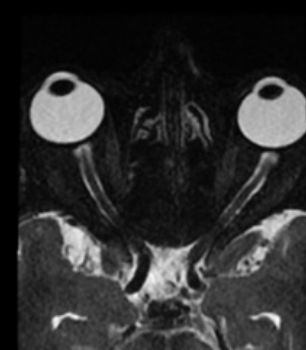
8x speed gain with Flex, HyperSense and HyperCube.



3D MRCP with HyperSense
Free-breathing with Auto Navigator
320 x 256, 1.6 mm
2:17 min



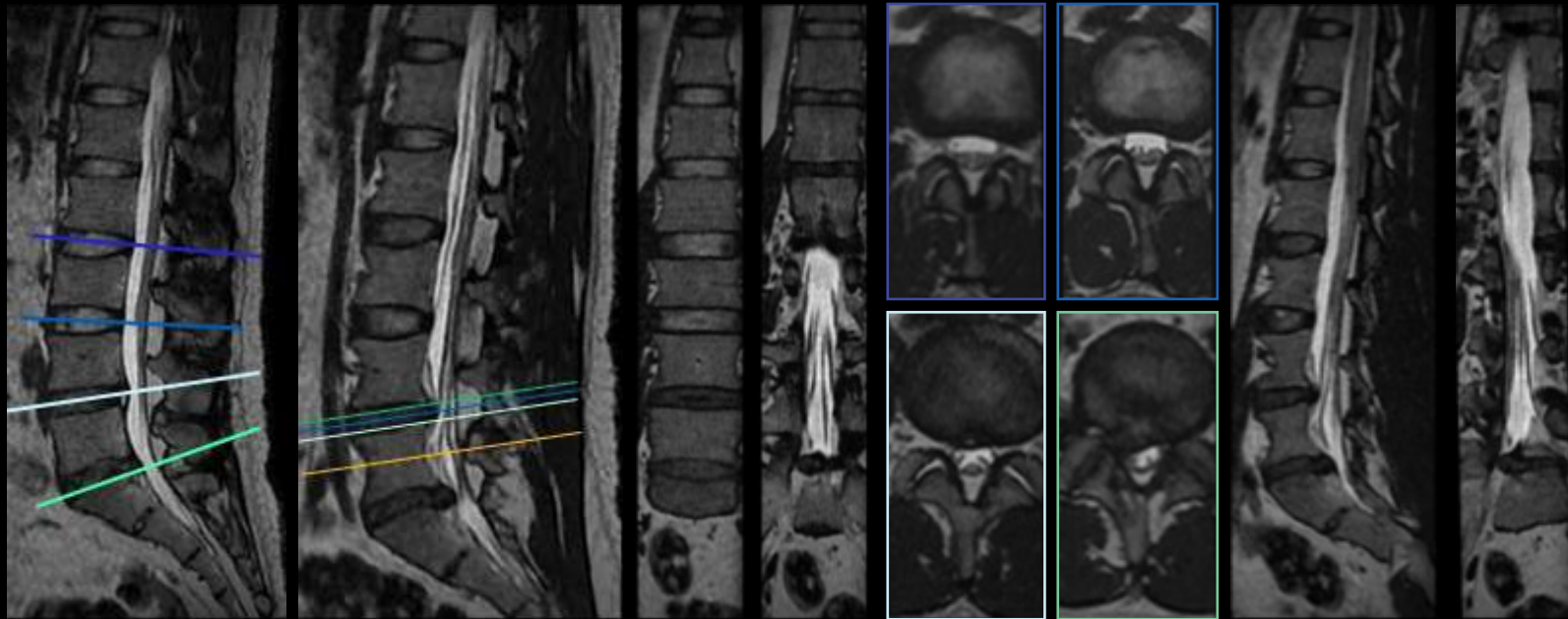
Female pelvis
T2 Cube Sagittal with HyperSense and HyperCube



Axial HyperCube
T2 Flex Orbits
0.7 x 0.7 x 1 mm

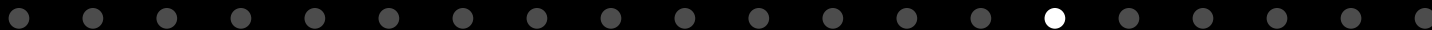
HyperWorks

Provide faster 3D imaging acquisitions of the area of interest by eliminating the need for time-consuming parameters, without SNR loss, by combining HyperSense and HyperCube.



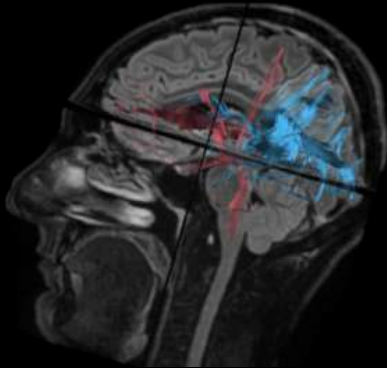
T2 HyperCube and HyperSense
A single 3D Sagittal acquisition with
Coronal, Oblique and Axial reformats
1:58 min

Oblique views

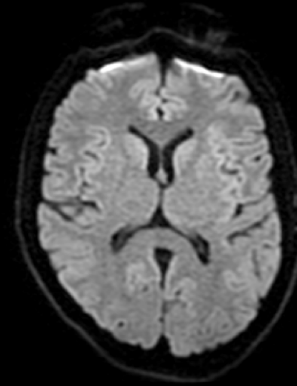
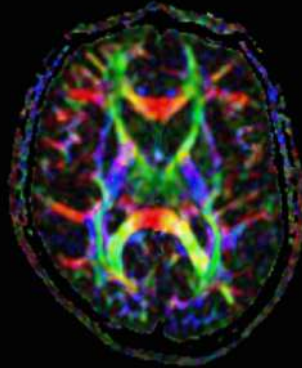


HyperWorks

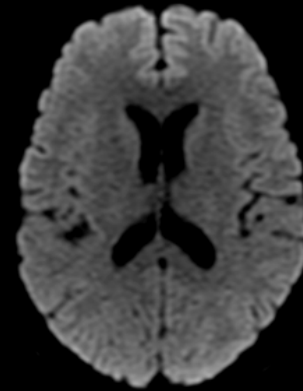
Scan more diffusion directions or temporal resolution, without increasing scan time, by exciting and acquiring multiple slices simultaneously with HyperBand.



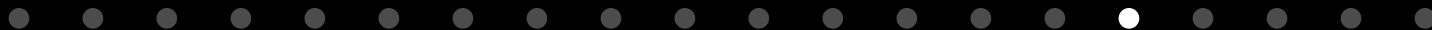
Axial DTI HyperBand
2.5 mm/0, 30 directions
2:33 min



Axial DWI
HyperBand 2
4 mm/0.4 mm
128 x 160
36 sec



DWI Axial with HyperBand
b1000
22 sec



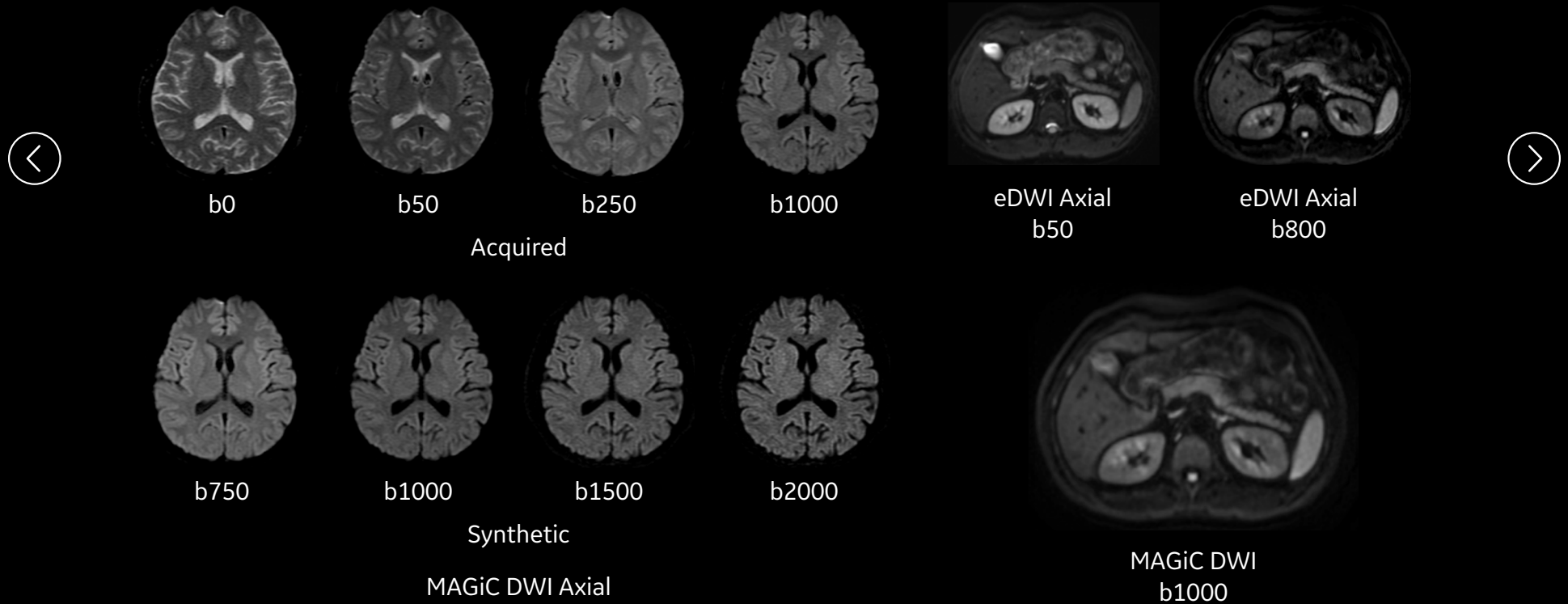
ImageWorks

Boost your overall MR performance with ImageWorks applications.

Generate multiple synthetic b-values from one DWI scanned series with MAGiC DWI so you can get any b-value in real time after acquisition.

■ Increase productivity by enabling higher b-values in shorter scan times.

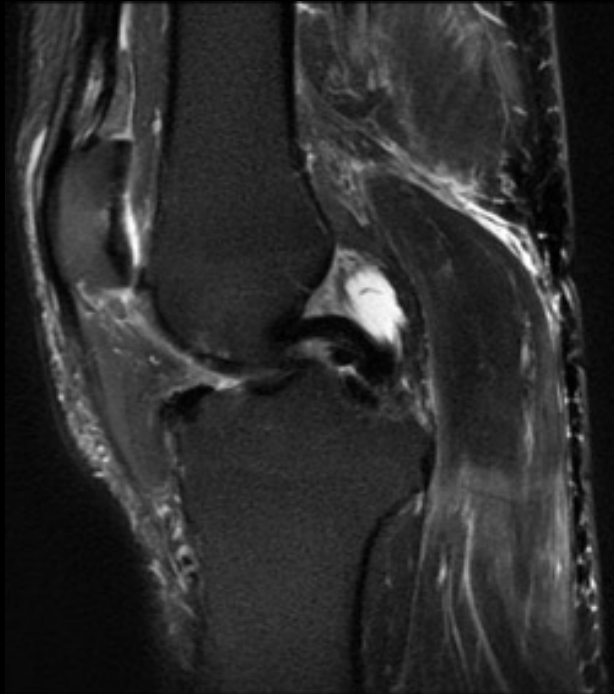
■ No need for patient rescans for higher b-values.



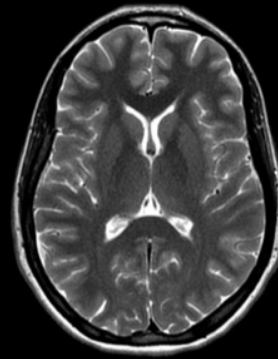
SilentWorks

Virtually eliminate the acoustic noise of MR across all anatomies without compromising image quality with SilentScan.

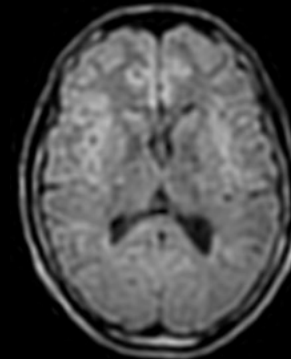
Use with multiple coils and weightings, including DWI.



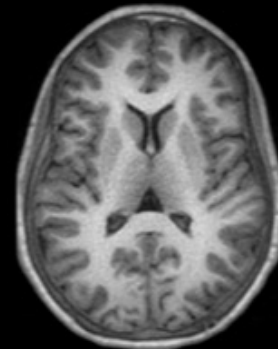
Sagittal T2 FatSat PROPELLER Silent



Axial T2 PROPELLER Silent



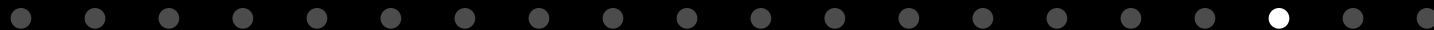
Silent DWI PROPELLER



Axial 3D T1 Silenz



Coronal Reformat 3D T1 Silenz



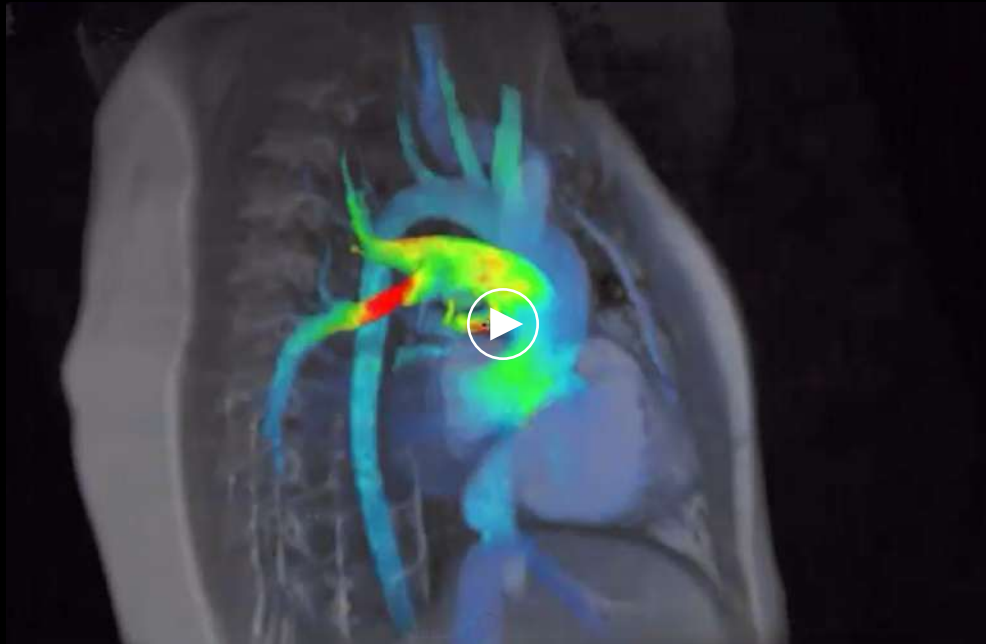
ViosWorks

Extend cardiac MR assessment beyond the anatomy by providing a comprehensive solution that captures all seven dimensions of information in a cardiovascular scan in 10 minutes or less with ViosWorks.

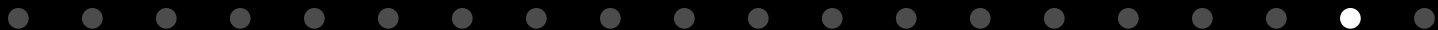
Allows analysis of cardiac anatomy, function and flow with quantification of 4D Flow.

■ Increase patient comfort with a quick eight-minute, free-breathing scan.

■ ViosWorks leverages the imaging analytic power of the Arterys™ cloud-based platform to precisely visualize and quantify cardiac flow.

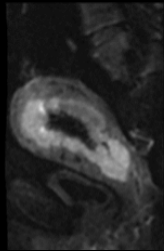


4D ViosWorks



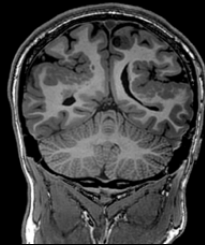
Fueling the future of MR with quantification

Providing quantitative and actionable information for one-time, longitudinal assessment.



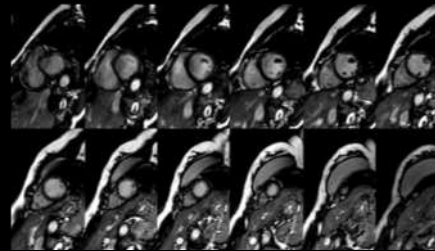
FOCUS DWI

EPI diffusion that enables smaller FOV imaging of dedicated anatomy



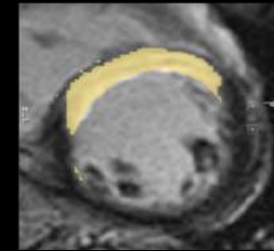
MAGIC DWI

Increases productivity by enabling higher b-values in shorter scan times



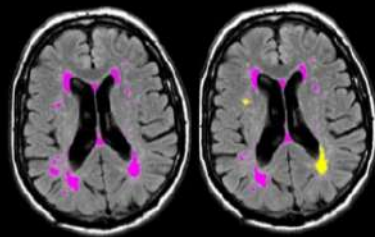
ViosWorks 3D (3D Cine)

Quantifies LV and RV function, ejection fraction, myocardial mass



cmr⁴² analysis

Rapid, quantified results and report generation



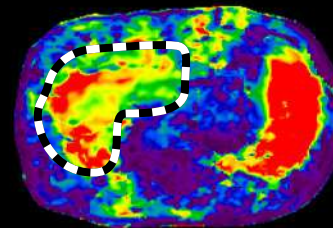
Quantib Brain

Automatic labeling visualization and volumetric quantification of brain structures



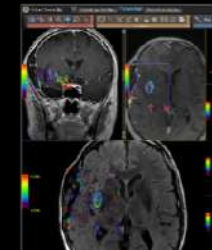
IDEAL IQ

Non-invasive, quantitative, fat fraction assessment of the liver



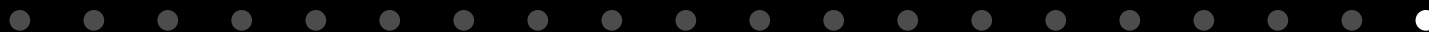
MR Touch

Non-invasive approach to assessing liver stiffness



GenIQ

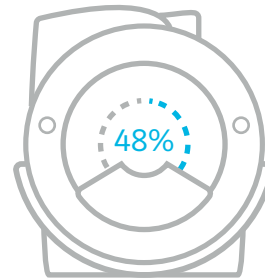
Quantified DCE-MRI image analysis to assess vascular properties in lesions



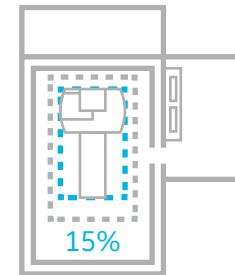
Up your power, not your footprint

SIGNA™ Voyager fits both a wide bore and the entire 1.5T experience in a 27 square meter footprint. The Ultra High Efficiency Gradient System provides lower power consumption with high-performance gradient technology, equivalent to 45/200 mT/m.*

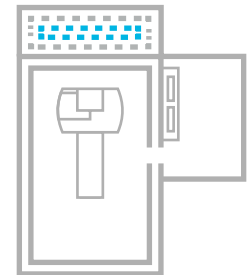
Multiply the value of advanced 1.5T imaging in a smaller, more efficient MR.



Up to 48 percent lower power consumption with eco-friendly UHE gradients, minimizing operating costs**



Over 15 percent smaller footprint significantly lowers setup cost**



Save space with low capacity chiller and power distribution hardware

* UHE gradient technology delivers minimal TE/TR values, equivalent with other gradient technologies running at 45 mT/m peak amplitude and 200 T/m/s peak slew-rate

** Compared to conventional 1.5T wide-bore systems

You haven't seen a 1.5T like this

SIGNA™ Voyager was built to test the true potential of 1.5T in a fast-paced, outcomes-focused clinical environment. It pairs the efficiencies of a small footprint and low power consumption to the clinical advantages of a wide bore system with top-tier magnet homogeneity.

It's a 1.5T with the performance needed to meet today's imaging challenges.





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Imagination at work

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