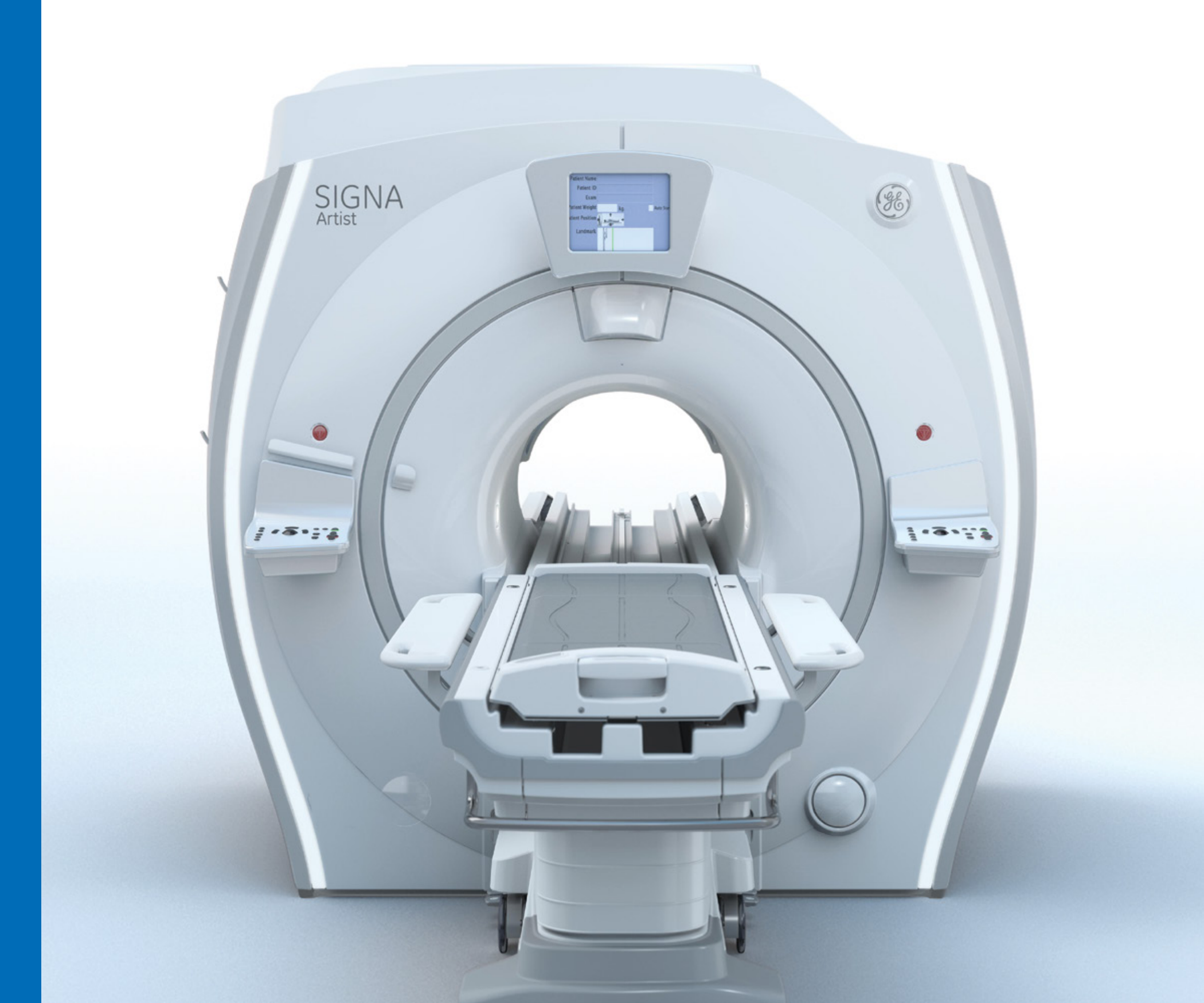
GE Healthcare

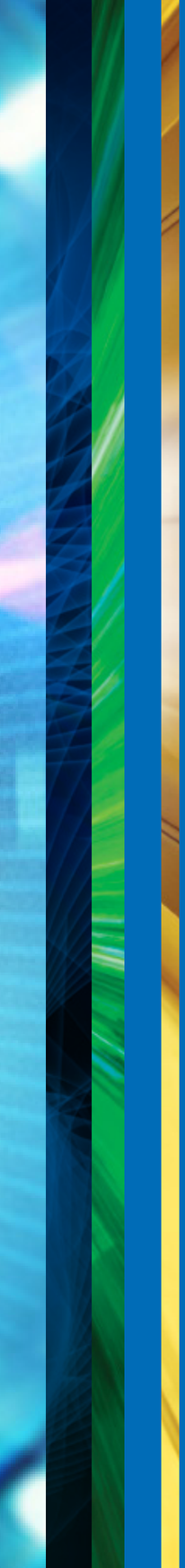
Surpass

the unimaginable and make it the expected.

SIGNA™ Artist

Imagine what MR can be.


SIGNA
Artist



Unleash

Clear advances with clear advantages.

Now the potential for MR is even more astonishing with the SIGNA™ Artist, the most advanced and intuitive 1.5T engineering in MR technology from GE Healthcare. Fueled by our new SIGNA™Works productivity platform, the SIGNA™ Artist is a harmonious design of form and function. Everything in its blueprint is crafted to significantly energize your productivity, enhance security, improve diagnostics and boost your bottom line.

Welcome to the future of MR. Surpass the unimaginable with SIGNA™ Artist.


SIGNA™ Works
fueling the future of MR

SIGNA™Works

The new standard is extraordinary.

Our new SIGNA™Works platform redefines productivity across the breadth of our core imaging techniques with solutions. The SIGNA™Works standard applications portfolio is an extensive set of high quality and efficient imaging capabilities that enables you to achieve desired outcomes across your entire practice area.

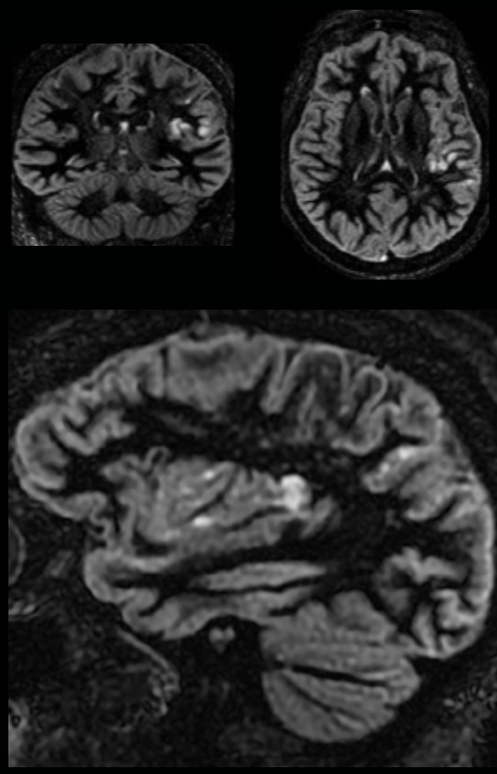
SIGNA™Works is the lifeblood, the soul and the muscle – literally the fuel that drives your imaging to the next level and beyond. SIGNA™Works standard applications come pre-loaded with the SIGNA™ Artist as a fully integrated solution. It's value-added technology that's upgradeable and can be customized further, giving you the flexibility to add applications to suit the needs of your growing practice.

SIGNA™Works takes full advantage of TDI (Total Digital Imaging), further advancing diagnostics and quickening throughput, while simultaneously improving patient outcomes and your ROI.

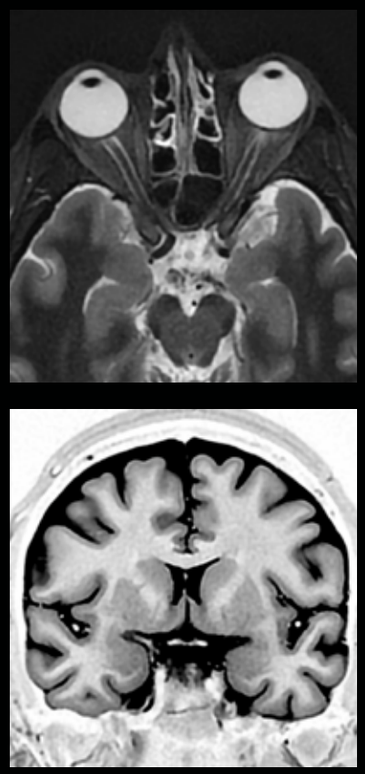
Energize

Phenomenal exams to meet your clinical needs.

The SIGNA™Works applications portfolio contains NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks. These imaging solutions cover a wide variety of contrasts, 2D and 3D volumetric data, including motion correction capabilities. SIGNA™Works provides all the tools you need to complete a clinical exam.



Cube DIR
1.6 x 1.6 x 1.6mm



T2 STIR PROPELLER
Axial 0.77 x 0.77 x 2mm
Coronal 0.77 x .077 x 3mm

NeuroWorks

This one-stop solution enables you to image brain, spine, vascular and peripheral nerve anatomy with exceptional tissue contrast. These motion-insensitive techniques feature single-click auto alignment, providing the complete neuro solution from scanning to post processing.

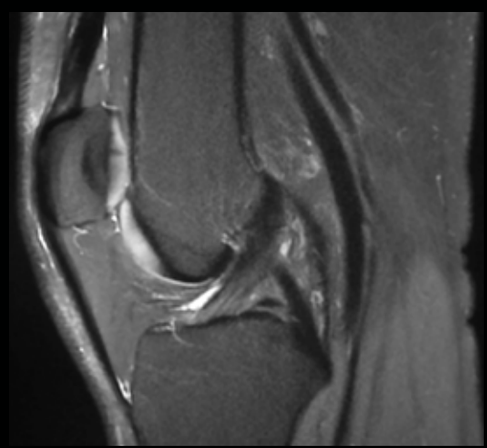
NeuroWorks also includes Cube, our 3D volumetric imaging suite, standard with every system. This application allows you to suppress CSF and either white or gray matter to increase lesion conspicuity.

PROPELLER MB, our latest PROPELLER enhancement, is a multi-shot approach that preserves tissue contrast regardless of weighting while also reducing motion artifacts. Additionally, this new technique introduces new contrasts such as T1 FSE.

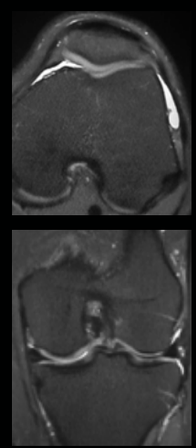
OrthoWorks

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

OrthoWorks also includes 3D volumetric Cube with proton-density, combined with ASPIR, which enables improved fat suppression uniformity, which is routinely done as three separate 2D scans. With one 3D acquisition and multi-planar reformats, Cube may replace individual 2D scans.



PD FatSat Cube Sagittal
0.6 x 0.6 x 0.6mm

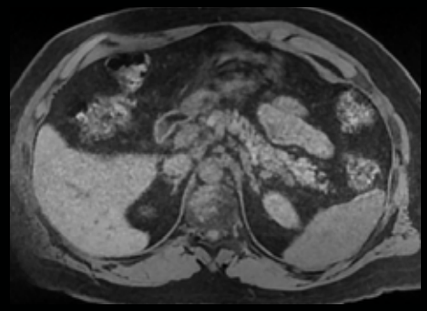


PROPELLER PD Coronal
0.4 x 0.4 x 3mm

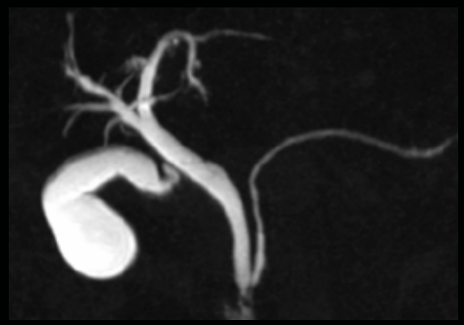
BodyWorks

With BodyWorks, we address one of the fastest growing areas in MR. This all-inclusive library allows you to image abdominal and pelvic anatomy with user flexibility to adapt to different patient types.

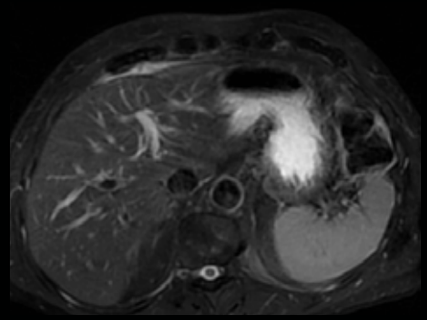
PB Navigators are GE's solution to combat respiratory motion in abdominal imaging. This free-breathing approach is compatible with multiple pulse sequences including diffusion, PROPELLER MB, MRCP and dynamic T1 imaging.



Navigated Turbo LAVA for Pancreas
1.6 x 1.6 x 2mm

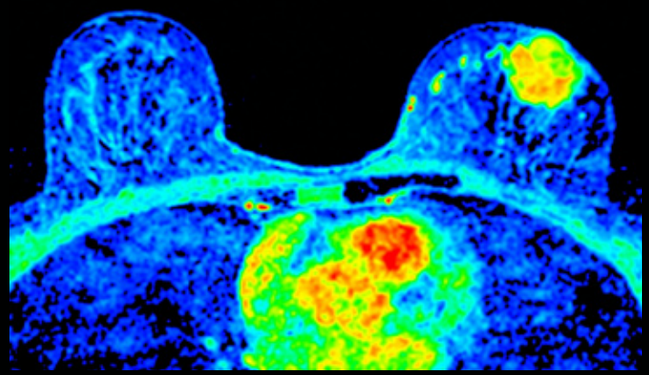


3D MRCP
1 x 1 x 1.6mm

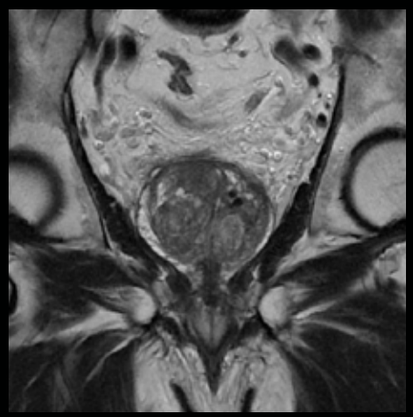


Axial T2 FatSat PROPELLER Navigated

Coronal T2 SSFSE Large FOV



Axial T1 Dynamic Contrast
Positive Enhancement Integral Map



Coronal T2 PROPELLER
0.6 x 0.6 x 4mm

OncoWorks

This extensive library of techniques captures anatomic and morphologic data to uniquely enable oncological assessment of the anatomy. OncoWorks includes robust tissue contrast, motion-insensitive, high temporal and spatial resolution imaging.

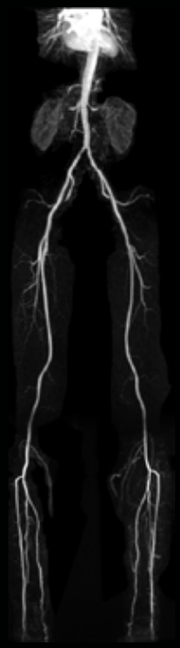
3D volumetric imaging with an optimized adiabatic fat suppression, combined with ARC or ASSET, provides high spatial and temporal resolution capture contrast uptake patterns. The images on the left show lesion characteristics generated using AW VS7's positive enhancement map. The T2 PROPELLER image demonstrates small FOV and motion-correction through the prostate.

CVWorks

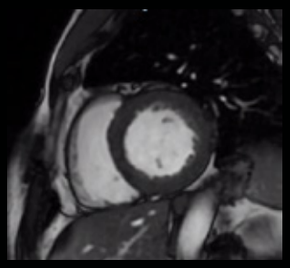
With our intuitive cardiac techniques, you can assess morphology, flow, function and tissue viability plus gain crucial insights into vascular structure and flow dynamics. CVWorks provides the flexibility to adapt to different patient types with exams that vastly simplify workflow.

With CVWorks, multi breath-hold imaging can be a thing of the past. Our latest Single Shot MDE and Black Blood techniques provide patient-friendly alternatives to uncomfortable breath-holds.

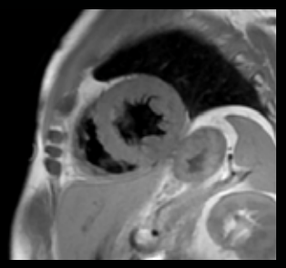
With our workflow-simplified QuickStep protocols, scanning whole body vasculature can be done in less than 6 minutes. High-performance gradients allow bright blood pool and myocardial tissue contrast on FIESTA Cine while preserving spatial resolution.



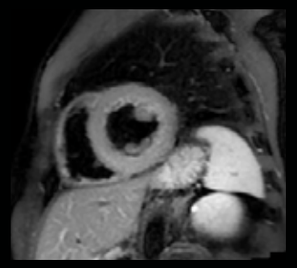
QuickStep MRA



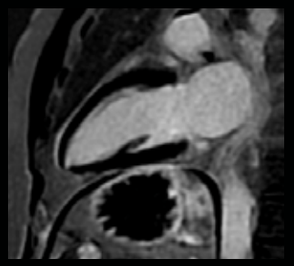
Short Axis 2D
FIESTA Cine



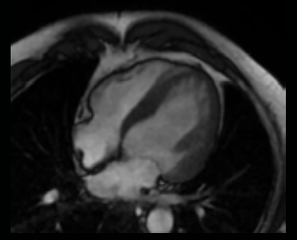
Black Blood – T1



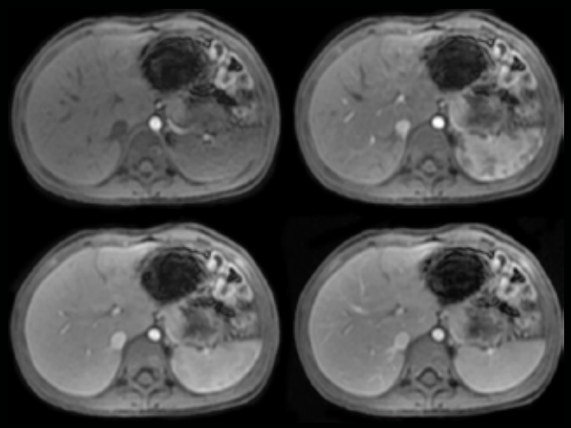
Black Blood – SSFSE T2
ASPIR



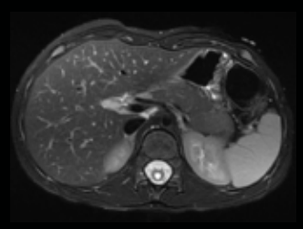
PS MDE



4ch FIESTA Cine



Navigated Turbo LAVA
Free Breathing Dynamic Liver
1.2 x 1.7 x 2.6mm
:25 sec / phase



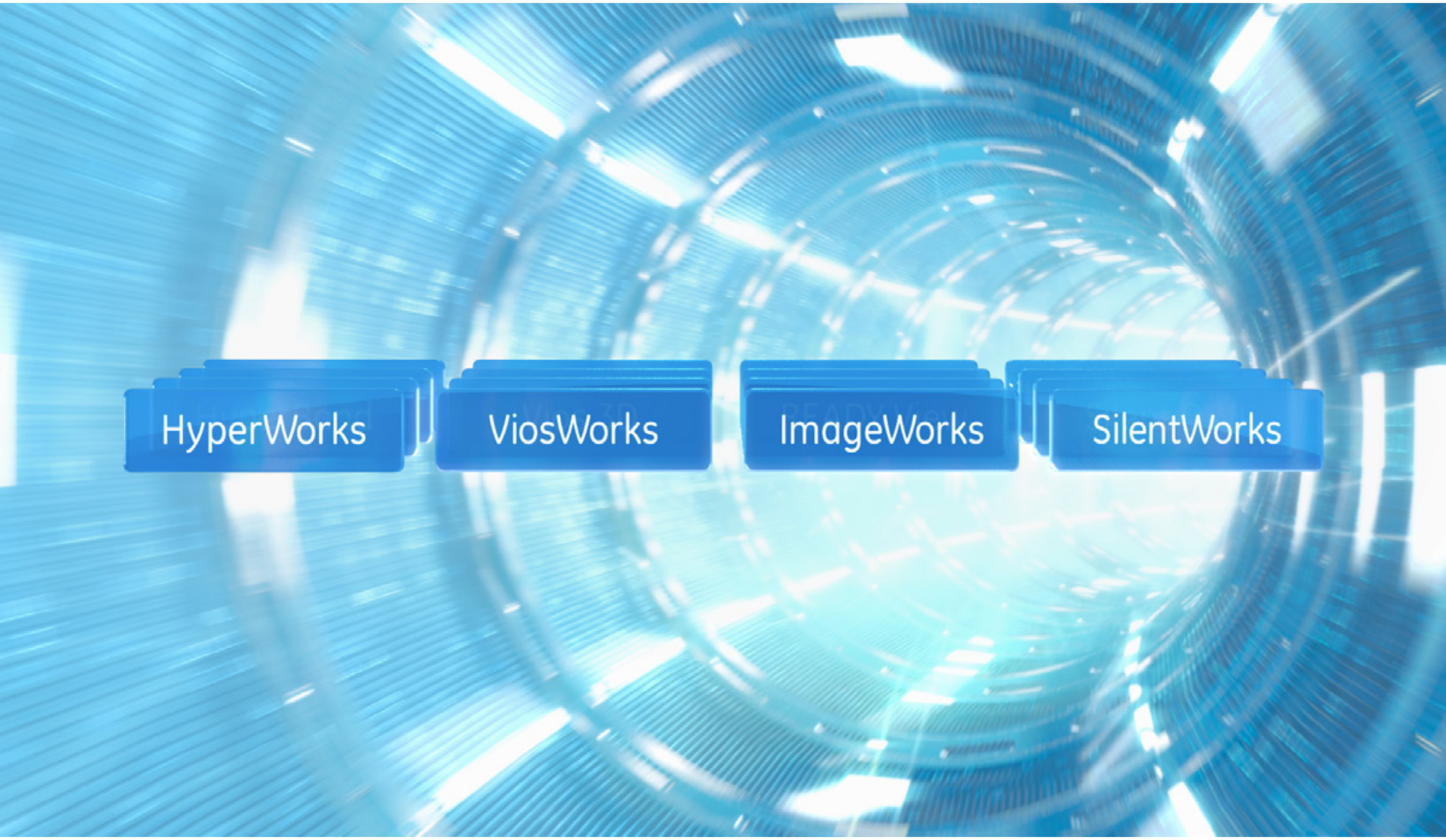
Axial T2 FatSat
FOV 24cm
0.9 x 1.1 x 5mm

Sagittal T2 Cube Pasted
1 x 1 x 1.4mm

PaedWorks

PaedWorks provides specialized protocols to simply address the needs of your smallest, most fragile patients. Techniques such as PB Navigators combined with PROPELLER MB are used with advanced techniques like diffusion imaging, allowing for patient-friendly, entirely free-breathing exams. Additionally, cardiac exams using Single Shot MDE provide faster, more reliable results.

Images on the left demonstrate dynamic T1 imaging with PB Navigator, which enables the patient to breathe freely while capturing contrast in fast temporal phases. Whole spine evaluation can be obtained simply with routine T2 frFSE imaging.


HyperWorks
ViosWorks
ImageWorks
SilentWorks

Expand

Broaden your areas of expertise.

Take your expertise to the next level when you move beyond the standard with SIGNA™Works innovative applications. Improved image quality, higher efficiency and a more streamlined workflow help you perform better than ever before.

HyperWorks
HyperWorks means hyper scanning with astonishing imaging and impressive speed. Exclusively introduced on SIGNA™ Artist's hardware and TDI platform, HyperWorks includes HyperSense, which can deliver higher spatial resolution images or reduced scan times.

ViosWorks
For the first time, all 7 dimensions of information; 3D in space, 1D in time and 3D in velocity can be captured in a 10-minute or less cardiovascular scan. ViosWorks includes a cloud-based, real-time visualization tool, powered by Arterys™. ViosWorks is truly groundbreaking as it reduces the complexity and cost of cardiac imaging with improved results in a shorter amount of time.

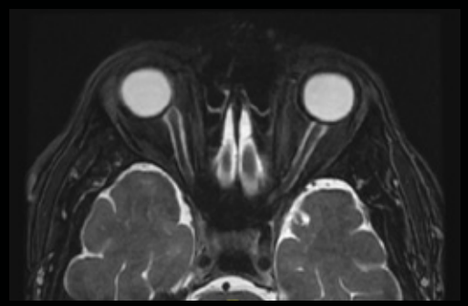
SilentWorks
SilentWorks is GE's most advanced noise-reducing technology and strengthens our promise to transform the patient experience. Traditional exams can be as loud as a rock concert, but our innovative SilentWorks technology reduces sound levels to roughly the same as ambient noise.

ImageWorks
ImageWorks boosts your overall MR performance through automation and advanced post-processing capabilities. READYView visualization and MAGiC one-and-done scanning help ensure consistent and clear results.

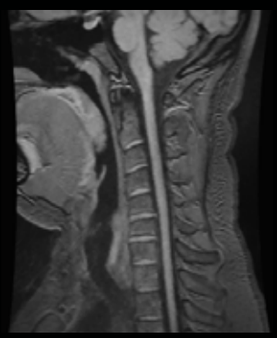
HyperWorks

HyperCube

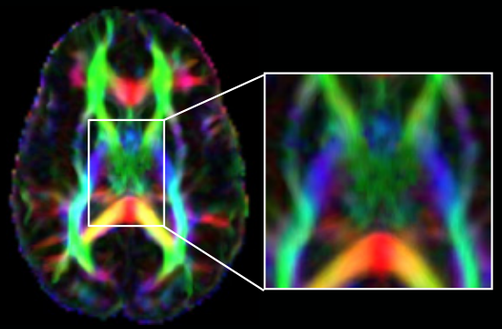
HyperCube expands the capabilities of 3D imaging, allowing you to significantly reduce scan times and eliminate artifacts such as motion and aliasing by reducing the phase field of view without the presence of aliasing artifacts.



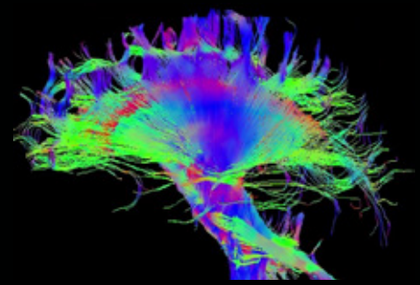
Axial T2 HyperCube Flex Orbits
Water Image
0.6 x 0.8 x 1.00mm^3
3:19 min



Sagittal T1 HyperCube Flex
Water Image
1 x 1 x 1.4mm^3
3:01 min



HyperBand FA Map



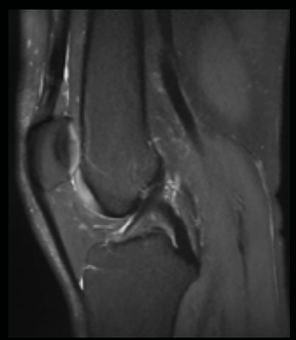
HyperBand DTI

HyperBand

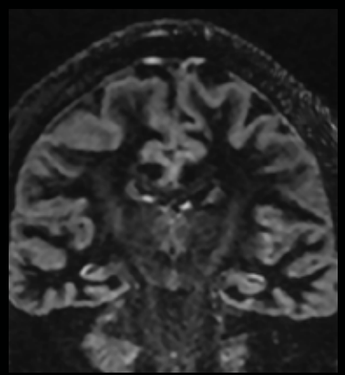
HyperBand takes your diffusion to a new level by allowing you to acquire more slices or diffusion directions within a typical scan.

HyperSense

HyperSense is an acceleration technique based on sparse data sampling and iterative reconstruction. This application can deliver higher spatial resolution images or reduced scan times, enabling faster imaging without the penalties commonly found with conventional parallel imaging. HyperSense can also be combined with other methods of acceleration (ARC) for achieving high signal-to-noise ratio with shorter acquisition times.

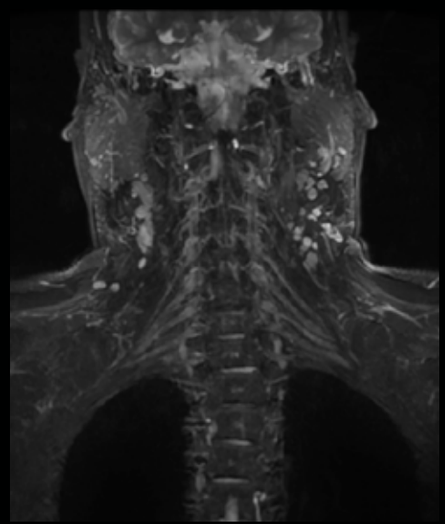


Sagittal PD Cube FatSat
16ch T/R Knee Coil
0.5 x 0.5 x 0.5mm^3
5:18 min

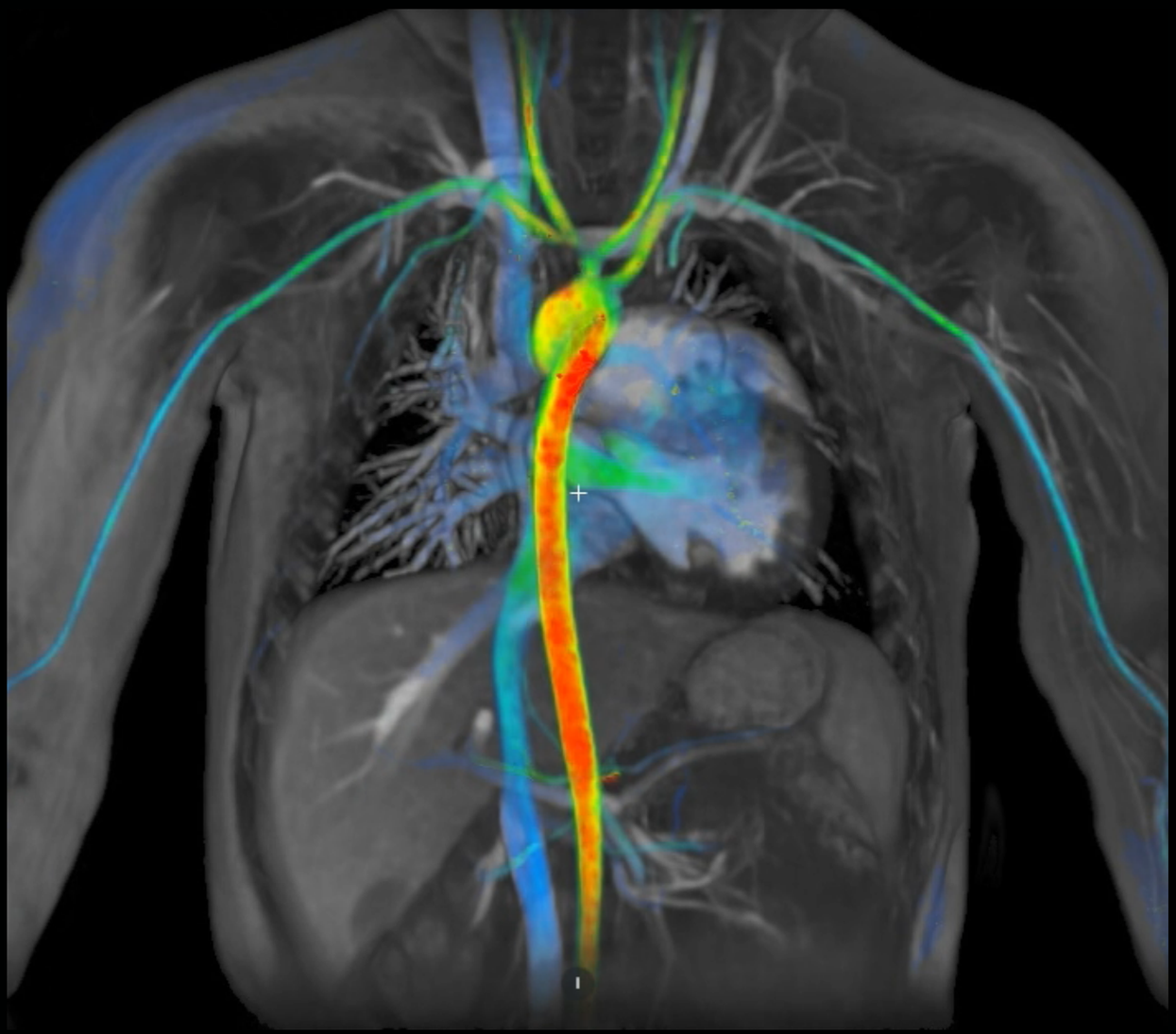


Sagittal 3D Cube DIR
(Coronal Reformat)
1.3 x 1.3 x 1.4mm^3
4:02 min

Time of Flight
0.7 x 0.8 x 1.00mm^3
2:38 min



Coronal T2 HyperCube Flex
Water Image
1.2 x 1.2 x 1.4mm^3
4:56 min

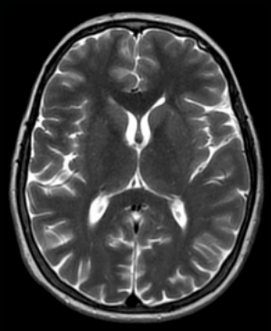


ViosWorks

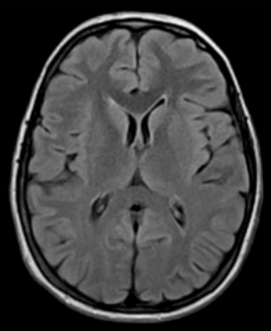
ViosWorks, powered by Arterys™, provides detailed quantitative flow, regurgitant measurements and stroke volume. Thickness and mass and ejection fractions can be obtained with this precise and non-invasive solution.

SilentWorks

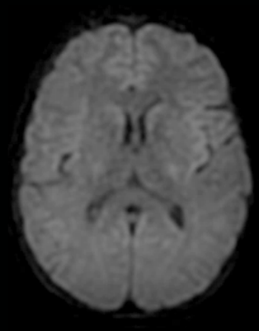
SilentWorks is available across all anatomies and can be done with multiple weightings and coils, including DWI. Zero TE techniques enable imaging in vasculature structures with less artifacts that are commonly seen on traditional scans. And with new enhancements like 3D Silenz and PROPELLER MB, your exam time is shortened without compromise.



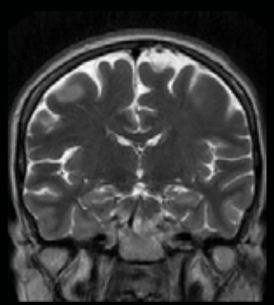
Axial T2 Silent PROPELLER
<11dB
0.8 x 0.8 x 5mm



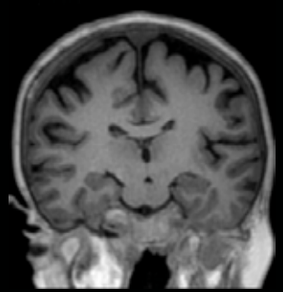
Axial T2 FLAIR Silent
PROPELLER <11dB
0.9 x 0.9 x 5mm



Axial DWI Silent
PROPELLER <11dB
2.1 x 2.1 x 5mm



Coronal T2 Silent
PROPELLER <11dB
0.8 x 0.8 x 4mm



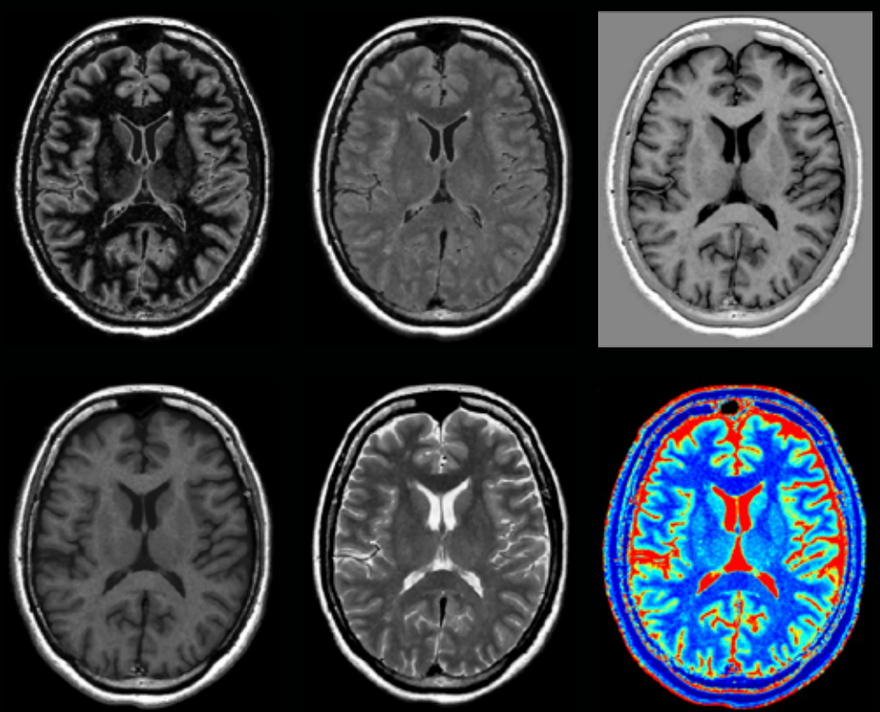
Coronal Reformat
(Sagittal T1 Silenz <3dB)
1.2 x 1.2 x 1.2mm

Sagittal T2 PROPELLER
FatSat Silent

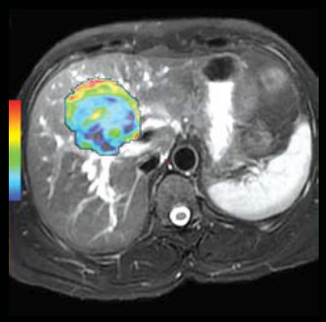
ImageWorks

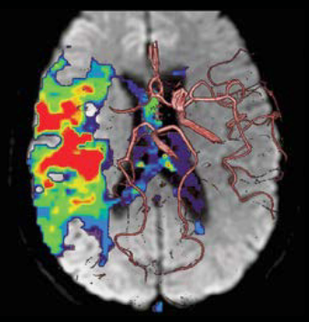
MAGiC

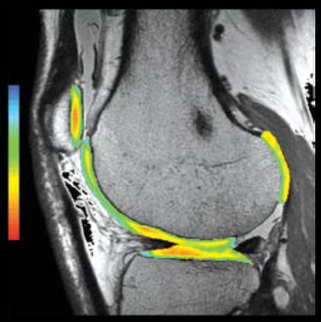
The secret of MAGiC lies in its unique ability to make possible multiple image contrasts in a single neuro scan. MAGiC delivers enhanced clinical flexibility by freeing up time for advanced imaging. MAGiC goes beyond the routine, providing complementary parametric data for a more complete picture. Image contrast can be changed by applying simple adjustments after acquisition.



DIR, FLAIR, PSIR (top), T1, T2, and T1 map (bottom) were acquired in one scan in about 5 minutes.

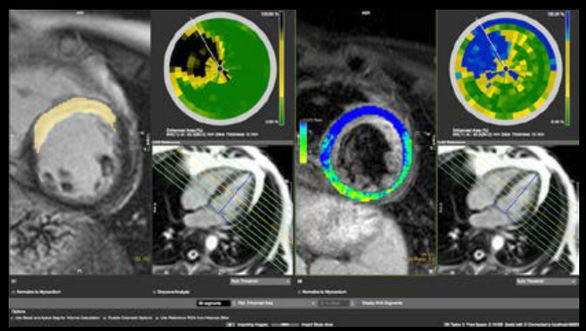


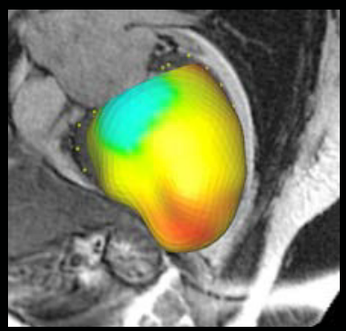


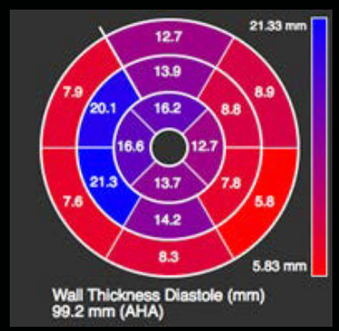


READYView

READYView helps simplify complex exams by providing a visualization platform that gives you access to advanced post processing technology. With READYView being directly available on the MR operator console, it accelerates workflow and reading readiness by eliminating time consuming post processing steps.





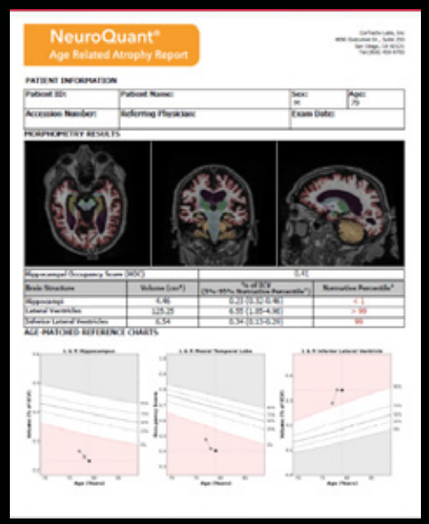


cmr^{42}

cmr^{42} is a comprehensive cardiovascular post processing solution that uses automated algorithms to assess tissue characterization, mapping, flow and function.

NeuroQuant

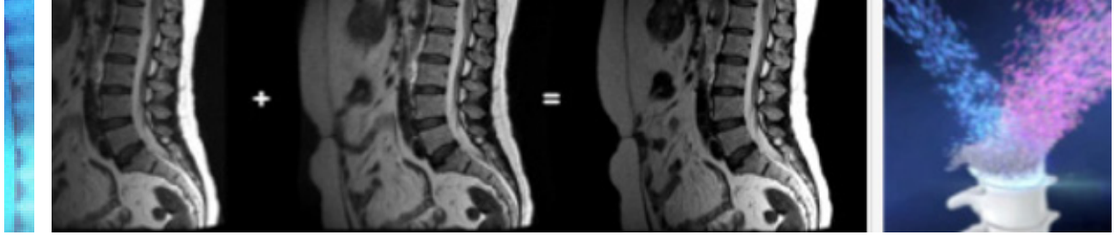
NeuroQuant automatically segments and measures volumes of brain structures and compares these volumes to norms. This information helps make a diagnosis and follow the progression of a disease. NeuroQuant can provide reports for a variety of clinical impressions, including Age Related Atrophy, Hippocampal Volume Asymmetry, Multi-Structure Atrophy, Triage Brain Atrophy, Brain Development and General Morphometry.



Elevate

Raise your MR performance to new heights with groundbreaking technology.

The SIGNA™ Artist is designed to overcome barriers that held you back. The cutting-edge platform makes it the most versatile, adaptable and powerful 1.5T system available from GE to date. Now, feet-first, whole body coverage is made easy. Dynamic yet insightful, the SIGNA™ Artist is MR built to work for you, not the other way around.

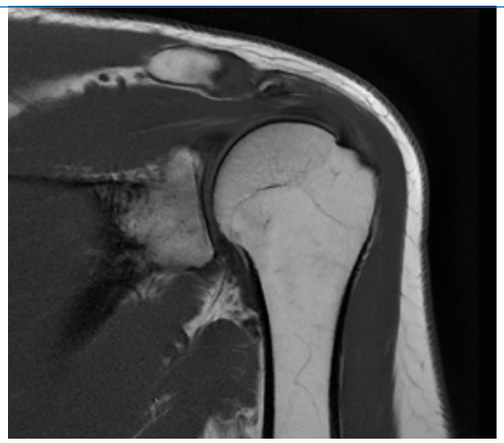


Total Digital Imaging (TDI)

The SIGNA™ Artist offers startling advances in imaging and a total imaging win with TDI.

GE's **Direct Digital Interface (DDI)** employs an independent analog-to-digital converter to digitize inputs from each of up to 128 RF channels, eliminating unnecessary noise enhancement. In other words, every element translates to a digitized signal. The result? Not only does DDI technology improve the SNR of our images but it also works with legacy GE coils for unmatched flexibility.

Digital Micro Switching (DMS) technology represents a revolutionary advance in RF coil design by replacing analog blocking circuits with intelligent Micro Electro-Mechanical Switches (MEMS). The result? Coil design supports ultrafast coil switching times for further expansion of zero TE imaging capabilities and reduced power consumption.



16 Channel Shoulder and T/R Knee Coils

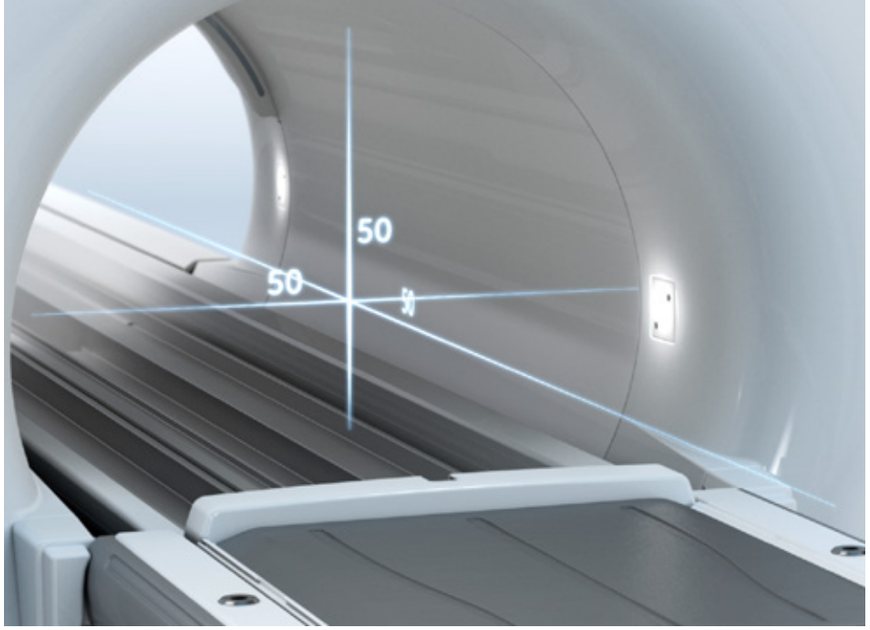
The 16 channel shoulder coil is a novel anatomy-adaptive coil design that provides efficient positioning workflow and outstanding patient comfort. The flexibility of the anterior paddle makes it possible to get closer to the patient to maximize SNR and improve imaging outcomes.

The 16 channel transmit/receive (T/R) knee coil delivers high-resolution knee imaging. The T/R design provides improved B_1 performance with the potential for higher resolution results, lower SAR and elimination of image backfolding. The larger diameter accommodates a wider range of patients and allows for simplified patient setup and higher patient comfort. The new design supports image acceleration in all directions for faster and enhanced clinical outcomes.

The 70cm wide bore design takes the fear out of MR. The expansive diameter, soft lighting and soothing fans help ease patient anxieties and concerns. The wider table design sits lower to the ground, enabling easier patient positioning. Lightweight and adaptable coil designs conform gently to a patient's anatomy, elevating the patient experience.

eXpress Dockable Table

The SIGNA™ Artist's eXpress table delivers feet-first or head-first imaging for all, and a more pleasant and faster targeted exam. Our table has the most comfortable memory foam surface available, alleviating pressure points. With its detachable egress, you never have to worry about how fast you can exit the MR suite. And with IntelliTouch patient positioning, just touch the edge of the table to position your patients.

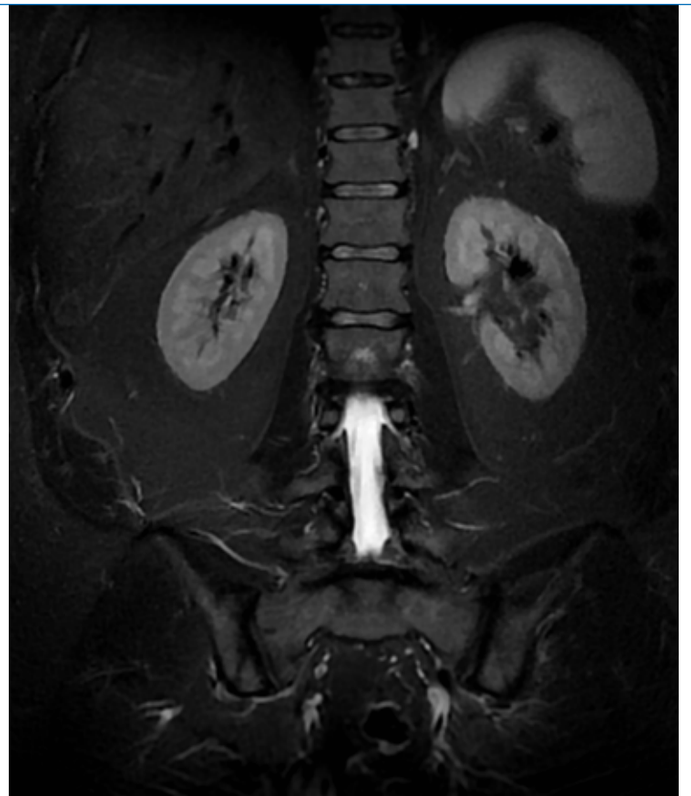


FOV

In addition to accommodating larger patients, full 50x50x50cm FOV in a 70cm wide bore allows you to properly image off-center anatomy such as shoulders and hips. The SIGNA™ Artist's phenomenal homogeneity enables our largest FOV ever, with higher gradient specifications. Additionally, excellent spatial integrity is provided by 3D GradWarp distortion correction, so no body part is left behind.

deFINE

deFINE takes the results of SIGNA™ Artist to the next level by enhancing the image appearance with integrated, in-line, optimizable settings. These settings can be generated for each individual sequence or for the entire exam. With deFINE, you meet your high quality image needs and go beyond the normal.



About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

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