gehealthcare.com

Introducing SIGNA™ Prime

You are ready for MR

We all have fond memories of doing something for the first time. Our first day of school. Our first time driving a car. The purchase of our first home. These memories are powerful and enduring. This is why we want to make sure your first experience with MR is a great one.

With SIGNA™ Prime, we've created an MR that almost anyone can use because it's built on what you already know. If your facility has any type of diagnostic imaging within its walls, you are ready to take the next step to MR. We have utilized our 40 years of experience in MR innovation to develop a system with an ingeniously simple, environmentally friendly design and future-ready capability.

SIGNA™ Prime makes the MR adoption process simple and seamless. Exclusive features like our new intuitive user experience make SIGNA™ Prime first-time-user-friendly and efficient for daily operations. SIGNA™ Prime quickly and easily delivers consistent high-quality images using cutting-edge imaging technology.

1 — 2 — 3 → Ready

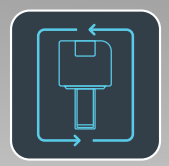
1

Easy to set up

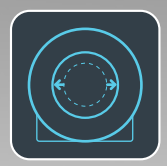
Green from site to scan

SIGNA™ Prime gives you all of the tools you need for a seamless transition to MR. SIGNA™ Prime has a small footprint, which makes it easier to site in a facility. You can also install SIGNA™ Prime in challenging power, water, cooling and helium-access conditions, granting you greater flexibility and a shorter install time. And we offer remote support, so you can quickly address any issues as you get started.

In addition to a more efficient installation, SIGNA™ Prime saves on operational costs in the long run with an eco-friendly system that delivers a 25% lower power rating and a 70% reduction in helium consumption thanks to our new Intelligent Magnet Technology. Additionally, the wide-bore-ready magnet gives you the opportunity to transform the bore size from 60 cm to 70 cm, which means that you may be able to upgrade your system in the future without the environmental impact, financial burden and administrative strain of acquiring an entirely new system.



Small footprint for easier siting



Future capability with an industry-leading, wide-bore-ready magnet

70% reduction in helium consumption thanks to our new Intelligent Magnet Technology

GET TO KNOW MR

What is a “green” MR?

MR uses liquid helium as a coolant to give the magnet superconductive properties that allow it to generate a strong magnetic field. Liquid helium is not only expensive and challenging to harness, but it is also becoming scarce. For this reason, our engineers have worked tirelessly to improve existing zero-boil-off technology to further reduce helium consumption. The result of this work is our latest advanced cryogen management technology, which conserves helium through intelligent installation, clinical operation and servicing. It saves you money and conserves this precious natural resource. That’s what we call a “green” MR.

1 — 2 — 3 → Ready

2 Easy to use

What learning curve?

We have leveled the MR learning curve with our all-new user experience. When we set up your SIGNA™ Prime, we tailor the system to your needs, whether you are an expert or someone just learning MR. It's the only user experience that allows you to personalize your MR system by introducing classic and express modes. It also includes a guided workflow with step-by-step instructions as well as simple protocol selection and planning to help you reach an error-free exam.

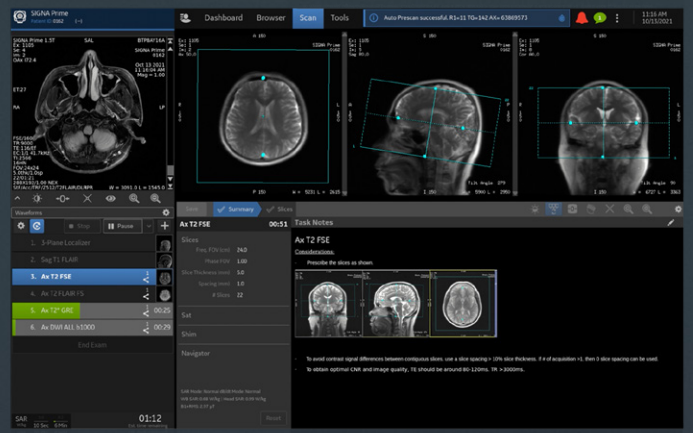
An intuitive, anticipatory user experience close to what you use every day

Technologists can learn to use MR in a matter of hours

Remote support is available if you need it

"The user interface of SIGNA™ Prime is just like using a normal PC at home."

– Mr. Alex Samuel, MRI Technologist
HOSMAT Hospital, Bengaluru, India

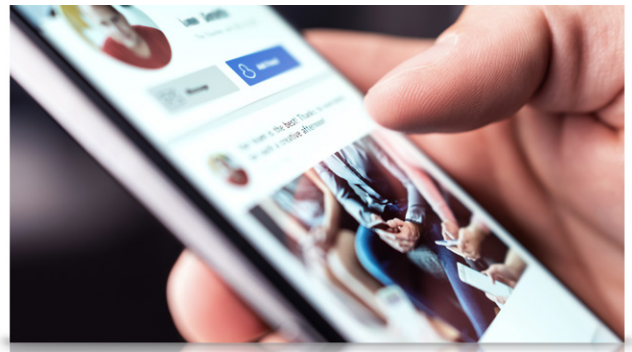


To further streamline the experience, you can monitor and scan your current patient while the system processes your previous patient's images. Thanks to this new intuitive user experience, any technologist can quickly and safely learn how to use SIGNA™ Prime. It's a simplified, consumer-like experience that leads to standardized operations and a happier, more productive workforce.

GET TO KNOW MR

Why is UI design so important?

The user interface, or UI, is the graphical interface you interact with to get a piece of technology to do what you want it to do. It's the steps you take to send a text message with your smartphone. In MR, it's how you use the operator console to get the MR to make an image. A good UI design is so easy to use that you can figure out how it works just by looking at it, which is important for training people new to MR.



3

Easy to read

AI is here to help

With SIGNA™ Prime, you don't have to choose between accessibility and quality. We equipped SIGNA™ Prime with state-of the-art Total Digital Imaging (TDI) 2.0 technology. We paired that with the latest AI technology to generate images that are as easy to read as the system itself is to use. SIGNA™ Prime includes AIR™ Recon DL capability, the industry's leading deep-learning based image reconstruction algorithm that works across all anatomies. AIR™ Recon DL improves image quality at the foundational level by leveraging raw data to remove image noise and ringing. It also improves SNR and image sharpness, enabling much shorter scan times.

AIR Touch™ automatically selects the best coil element combinations for each patient and FOV.

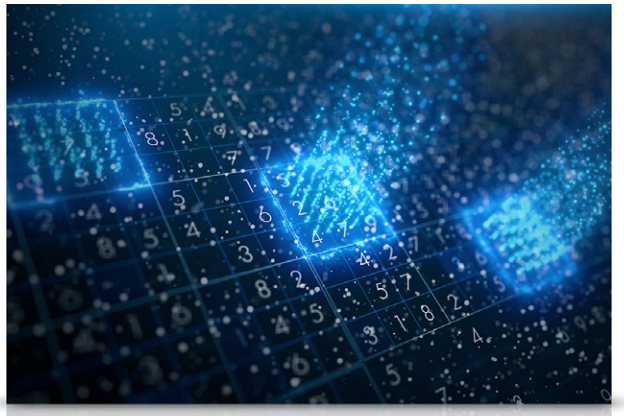
SIGNA™Works is a fully customizable productivity platform that includes a suite of applications to enhance imaging accuracy and consistency, even for the most challenging clinical cases. It also helps to improve the patient experience.

Total Digital Imaging (TDI) 2.0 technology combines the power of Direct Digital Transmit (DDT) for 100% better stability and 200% higher accuracy in typical radio frequency (RF) transmission, as well as Direct Digital Receive (DDR) to digitize inputs from each RF channel for an SNR increase of up to 30%.

GET TO KNOW MR

How does AI make images easier to read?

MR uses a reconstruction algorithm to take the raw image data and translate it into an image. AIR™ Recon DL is a deep-learning based reconstruction algorithm. Deep learning is a type of artificial intelligence, or AI, that trains the algorithm to automatically identify and remove artifacts from images, making them clearer, sharper and easier to read as well as faster to acquire.

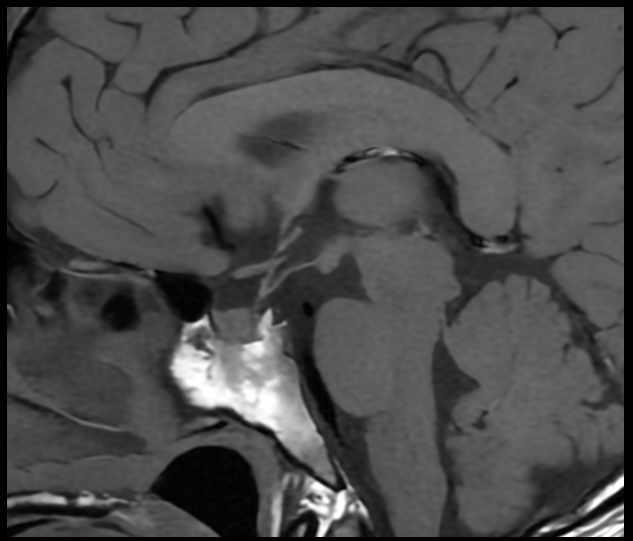


Clinical images

Imaging on SIGNA™ Prime with AIR™ Recon DL

With AIR™ Recon DL, radiologists can have higher consistency and quality in the images they interpret. Technologists can acquire higher SNR without a time penalty. Scan time may also be reduced without compromising detail or SNR.

Cervical spine



Pituitary gland

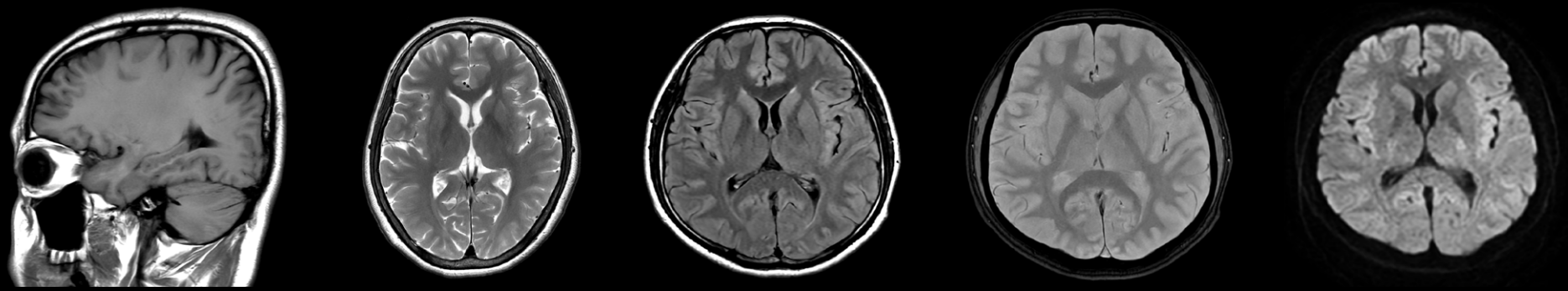
Ankle

Brain

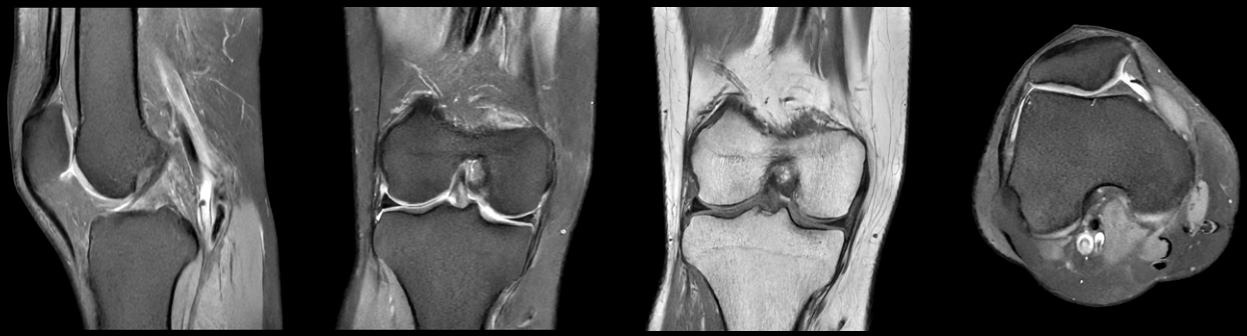
Hand

Abdomen

Fast protocols with AIR™ Recon DL

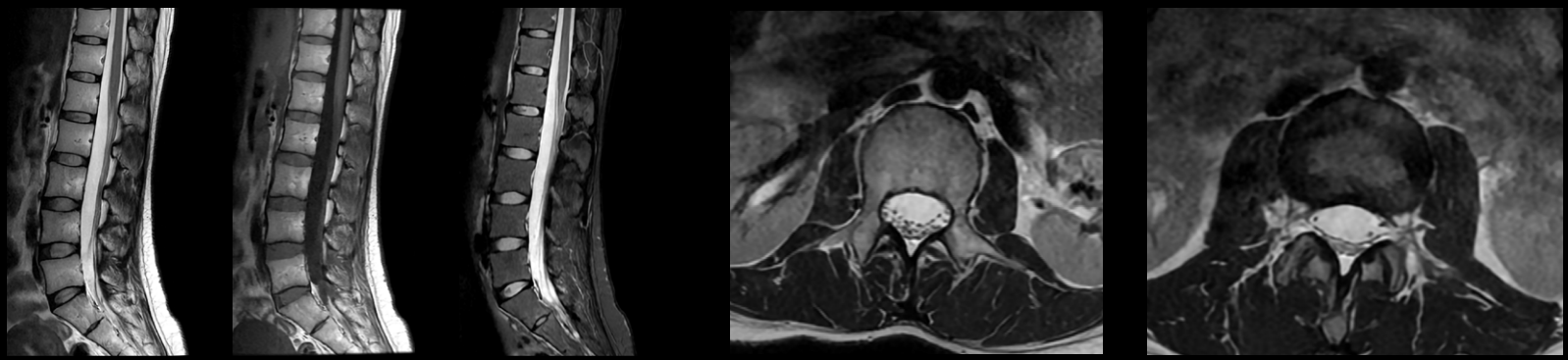


Head - total scan time 6:06 min



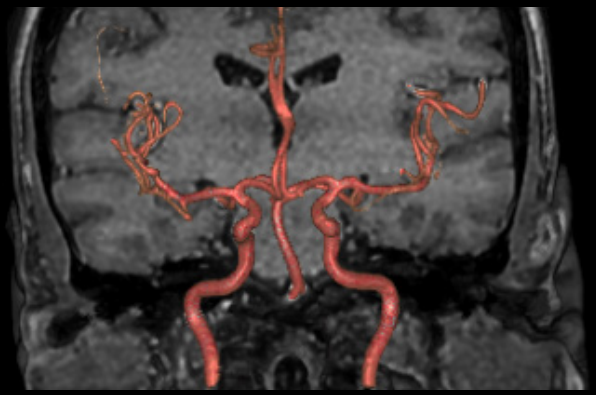
Knee - total scan time 4:49 min

AIR™ Recon DL can be used with most 2D sequences across all anatomies.

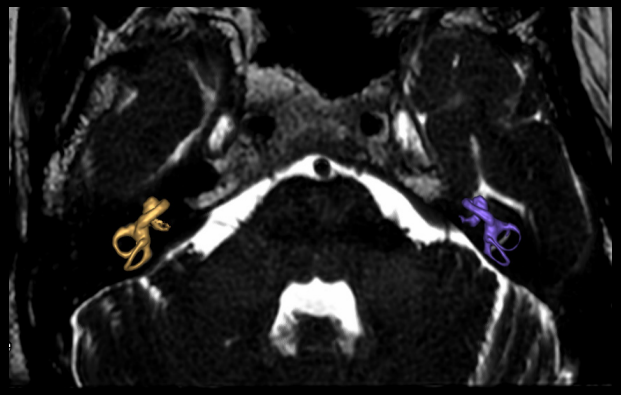


Lumbar spine - total scan time 5:46 min

SIGNA™ Works for all contrasts, across all anatomies



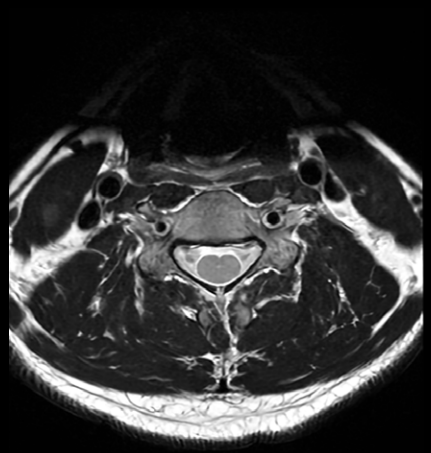
Circle of Willis



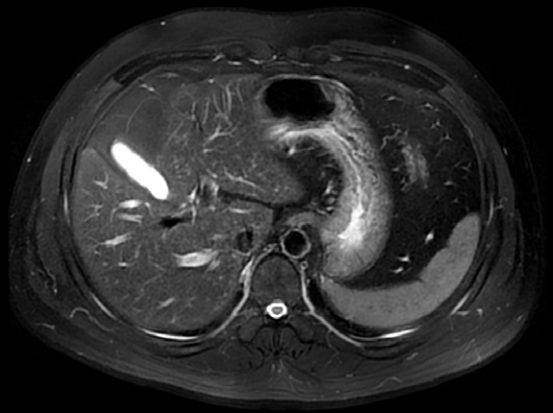
Internal acoustic canals

Elbow

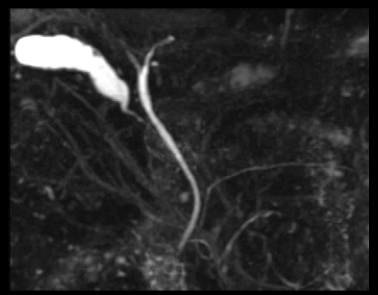
Cervical spine



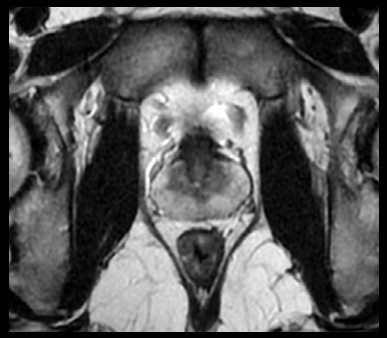
Cervical spine



Abdomen

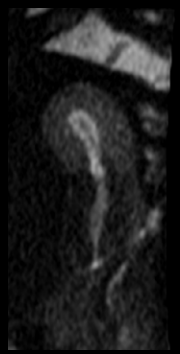


MRCP - cholangiopancreatography

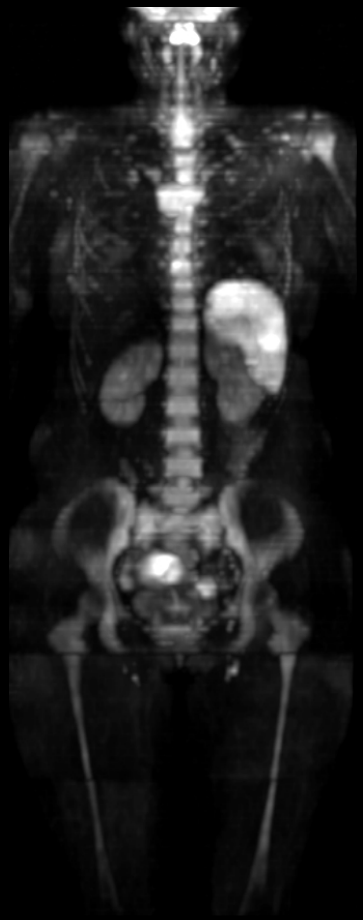


Prostate

Female pelvis

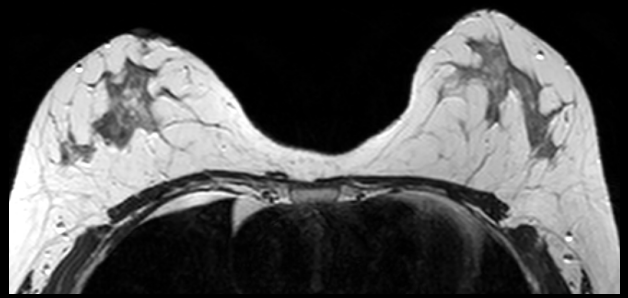


Uterus diffusion



Whole body diffusion

Full spine

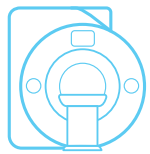


Breast

SIGNA
Prime

We'll make sure your first MR experience is a great one

It's time to change your perspective on MR. SIGNA™ Prime is specifically designed to feel as intuitive as any other imaging system you're already familiar with in your diagnostic imaging department. If you strive to offer the best healthcare for the community you serve, you are ready for MR. And we are ready to support you from siting, to your first scan, to every scan. We're excited for the opportunity to show you what SIGNA™ Prime can do.



1 — 2 — 3 → Ready

Building a world that works

510(k) pending with the U.S. FDA. Not available for sale in all regions.

About GE Healthcare:

GE Healthcare is the $18 billion healthcare business of GE (NYSE: GE). As a leading global medical technology and digital solutions innovator, GE Healthcare enables clinicians to make faster, more informed decisions through intelligent devices, data analytics, applications and services, supported by its Edison intelligence platform. With over 100 years of healthcare industry experience and around 50,000 employees globally, the company operates at the center of an ecosystem working toward precision health, digitizing healthcare, helping drive productivity and improve outcomes for patients, providers, health systems and researchers around the world.

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