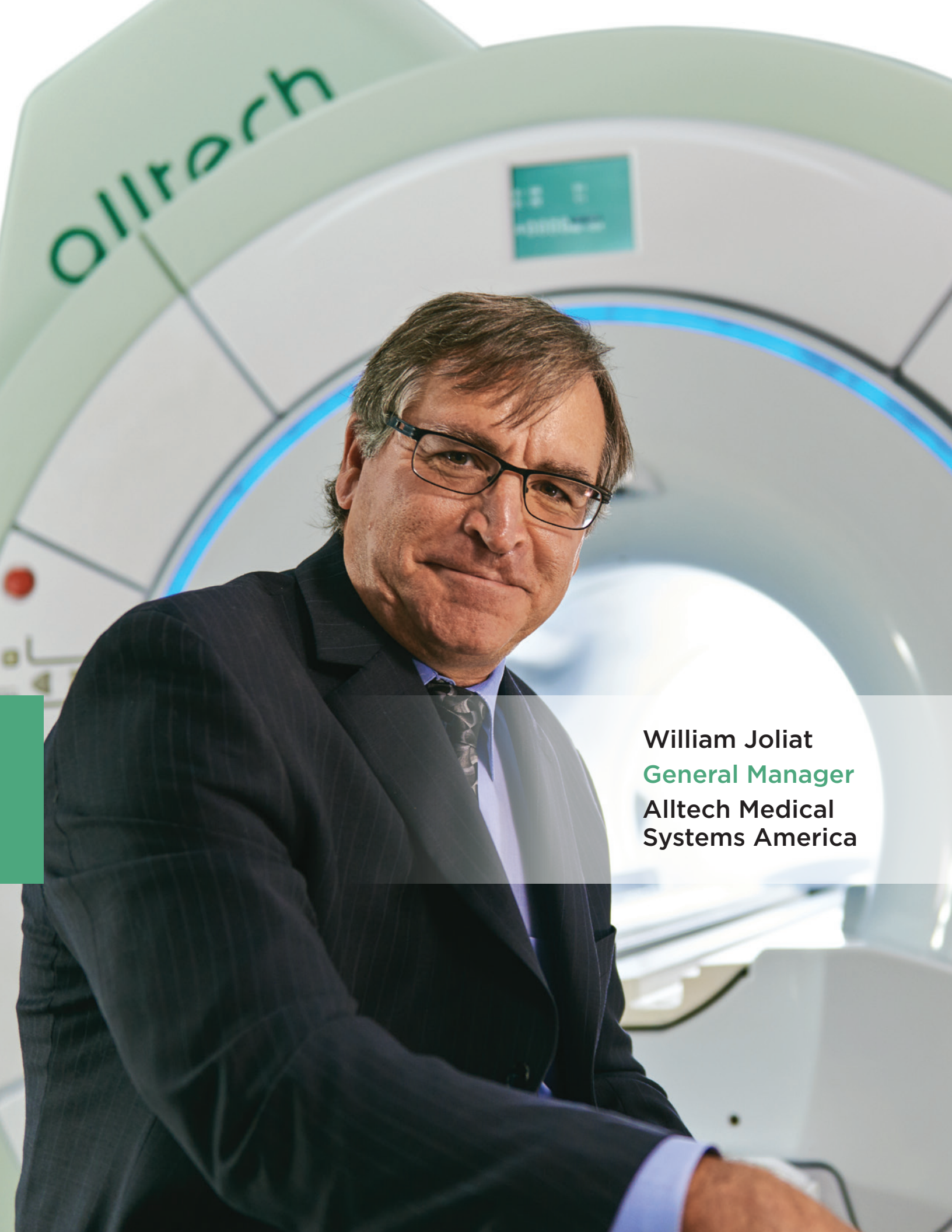


We Make High Performance Wide-Bore MRI Affordable



Echostar Comfort Wide-Bore 1.5T MRI

Delivering the optimal MRI experience for patients, clinicians, and healthcare facilities



William Joliat
General Manager
Alltech Medical
Systems America

Every facility wants an industry-standard 71cm wide bore MRI.

But not everyone can afford one.

Until now.

Discover the **Echostar Comfort MRI** from **Alltech Medical Systems America (AMSA)**. The Echostar Comfort was designed and built specifically for facilities that need a reliable, high throughput, workhorse MRI system.

The Echostar Comfort has everything you need:

- A 71cm wide-open bore
- High-resolution, exceptional image quality
- An affordable cost of ownership

Learn more about the Echostar Comfort in the pages that follow and be sure to include AMSA in your next MRI purchase evaluation.

Make sure every patient who walks through your door stays... to be scanned.

Don't scare patients away

with fears about a narrow-bore MRI experience.

The Echostar Comfort MRI system offers a 71cm wide bore that can accommodate patients of all sizes.

The 71cm wide-bore solution

With obesity on the rise, a 60cm bore is a no-go for many patients — and that's a problem for your staff and your bottom line. The Echostar Comfort 71cm wide-bore solution means a better experience for everyone.





Wide couch

The Echostar Comfort's wide couch comfortably supports patient weights up to 550 lbs.



The Echostar Comfort 50cm field of view allows more comfortable off-axis imaging, while still providing homogeneous fat suppression for clinical accuracy.



A better patient experience



Automated protocols

You'll increase efficiency and reduce the time the patient will spend on the table.

Lighting and airflow control

With the Echostar Comfort, your technologists control the patient environment. Variable lighting and airflow ensure optimal comfort for patients of all shapes and sizes. We also provide a built-in audio system option.

A comfortable environment benefits all patients, while helping your staff optimize throughput.

Quality images drive clinical precision

Echostar Comfort components are designed and developed by our USA engineering team, members of which have been awarded 87 MR imaging patents.

High-homogeneity magnet

The Echostar Comfort magnet provides a 50 x 50 x 50cm usable field of view.

Better gradient performance

33mT/m gradients drive to peak power in 0.25 milliseconds.

New multi-element coil arrays

The Echostar Comfort coil arrays, built into the tabletop and selected through programmed protocols, reduce the need for time-consuming repositioning.

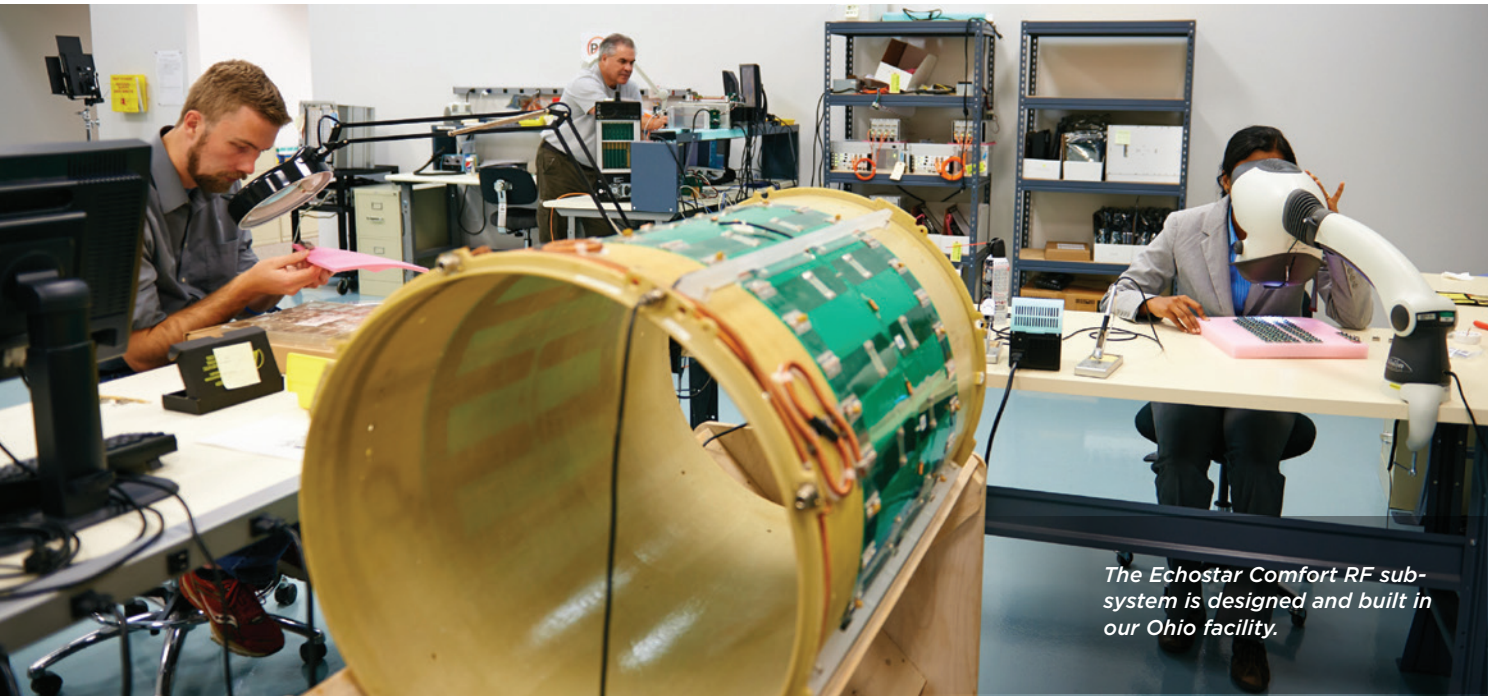
Comprehensive software capabilities

The Echostar Comfort user-friendly protocols optimize efficiency and support high-throughput scanning.



Images that meet your clinicians' most rigorous demands

MRI engineering expertise



The Echostar Comfort RF sub-system is designed and built in our Ohio facility.

Alltech Medical Systems America focuses on MRI system design, manufacture, and service.

Our leadership

Recognized expertise in MR science and engineering

Our team

Industry experts in the design, manufacture, and service of advanced high-field MRI systems

Our R&D engineers

Average 20+ years of experience in MRI design

Our market presence

More than 140 systems installed worldwide

We assist healthcare providers in reducing diagnostic imaging costs while delivering additional patient benefits and, in doing so, make a significant impact on the global healthcare industry.

Echostar Comfort - A better imaging value



The Echostar Comfort provides the highest value 1.5T MRI solution for your facility.

The EchoStar Comfort hardware and software components are designed and built through the collaboration of our U.S. R&D team and our state-of-the-art superconducting magnet manufacturing plant in China.

The Echostar Comfort is then assembled and fully tested in our FDA-approved manufacturing facility in Northeast Ohio.

It's how we deliver your wide-bore MRI at a surprisingly affordable cost of ownership.

Reduced service costs

With a ZBO (zero boil-off) magnet, the Echostar Comfort eliminates expensive cryogen replacement.

Throughput – Up to 80 patients in a day

The Echostar Comfort's intelligent, automated protocols have made it possible for customers to image up to 80 patients in a day.

Reliable components

From the superconducting magnets to the RF coils, Echostar Comfort's components are designed and assembled in our own manufacturing facilities.

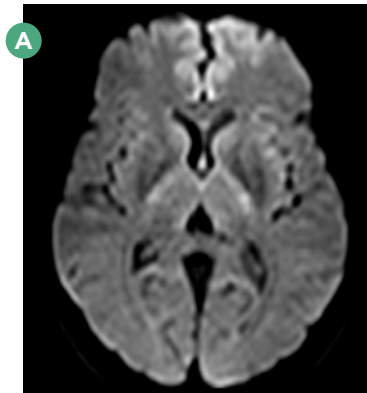
EchoStar Comfort is the high-value choice for facilities seeking to replace aging MRI systems with an industry-standard wide-bore MRI.

Echostar Comfort meets patient demand for a wide-bore MRI system while providing the images and advanced capabilities your clinicians demand.

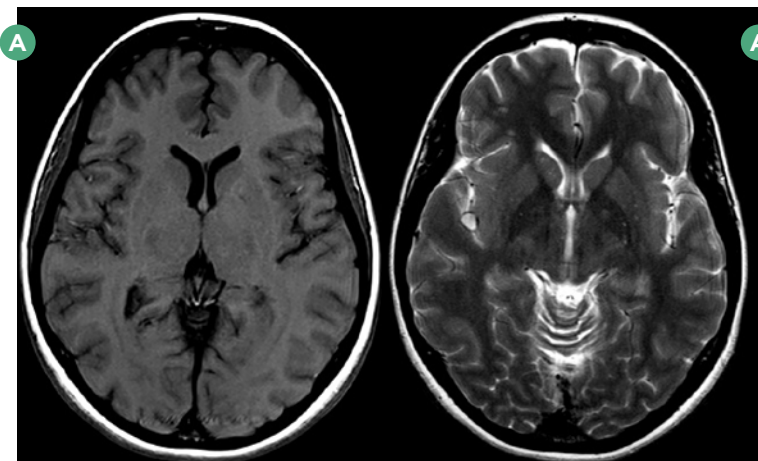
Echostar Comfort images



Circle of Willis Time of Flight Angiography



Diffusion Weighted Imaging

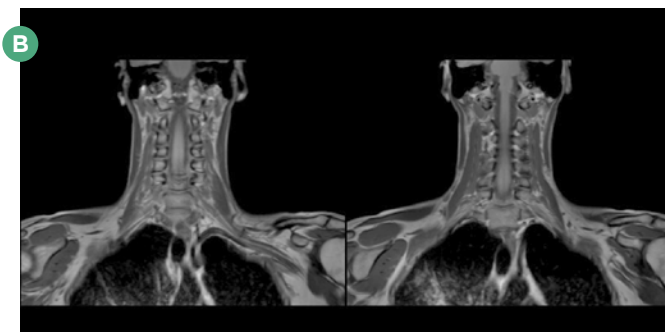


T1 Axial Brain

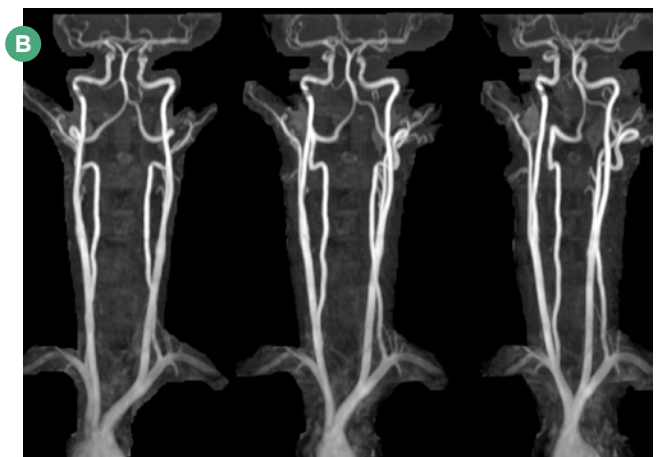
T2 Axial Brain



T2 Fast Spin Echo Full Coverage - HNV Array



T1 Fast Spin Echo Brachial Plexus



Time of Flight Angiography - HNV Array

A Phased Array Head Coil

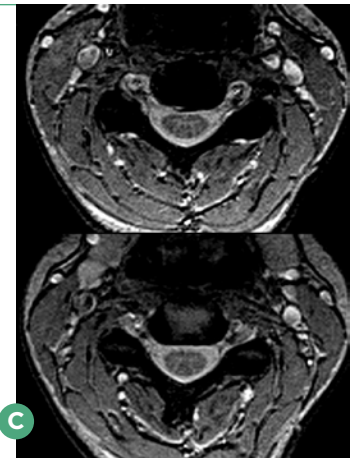
B Head/Neck/Vascular Coil Array



T1 Cervical Spine



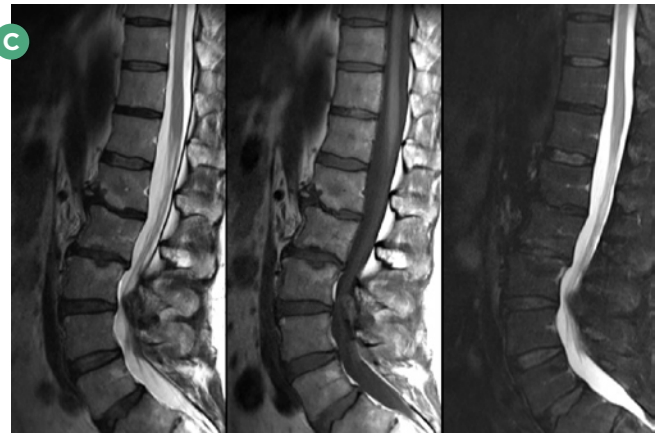
T2 Cervical Spine



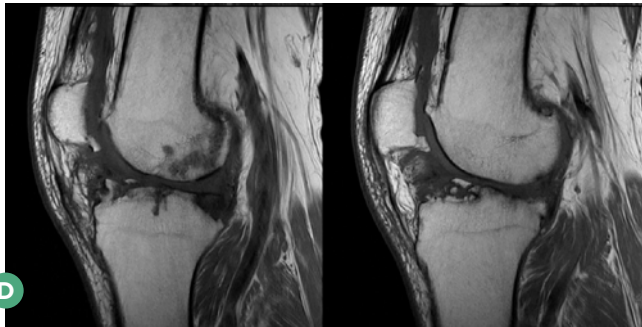
T2* Cervical Spine



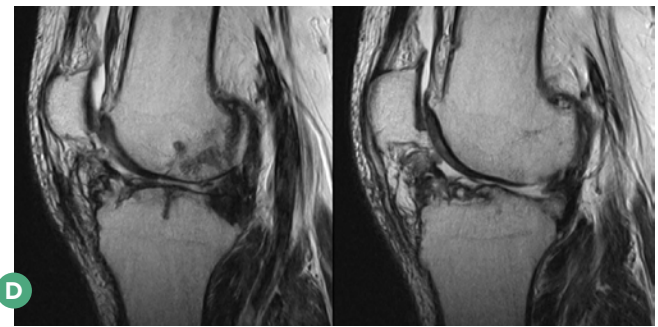
Thoracic Spine - T2, T1, and FatSat



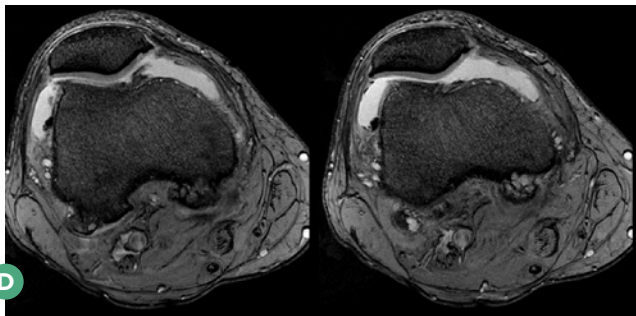
Lumbar Spine - T2, T1, and FatSat



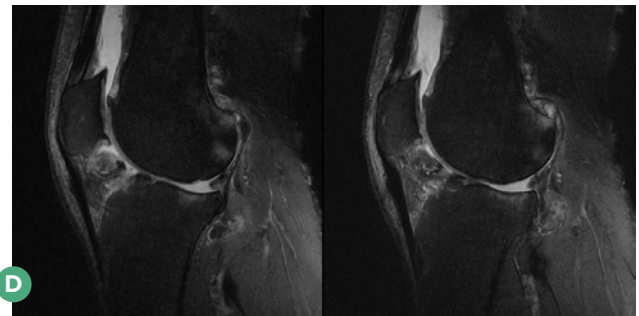
T1 Sagittal Knee



T2 Sagittal Knee



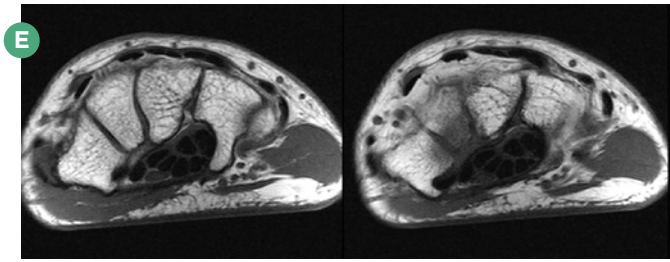
T2* Axial Knee



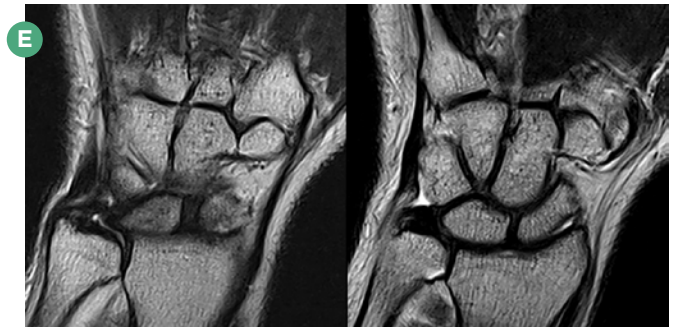
Proton Density Sagittal Knee with FatSat

C Integrated Spine Array

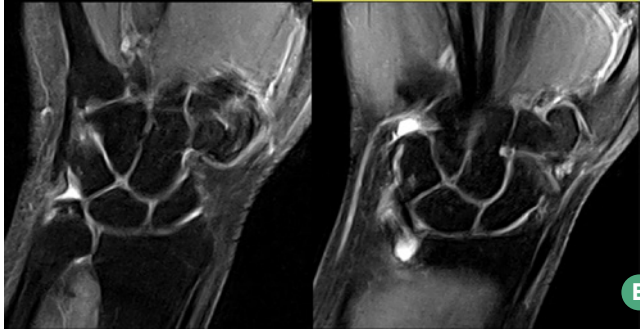
D Phased Array Knee



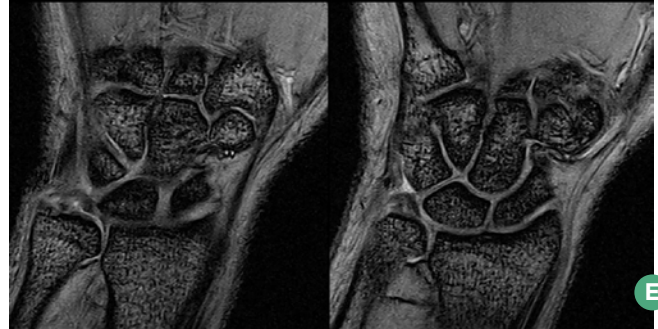
T1 Axial Wrist



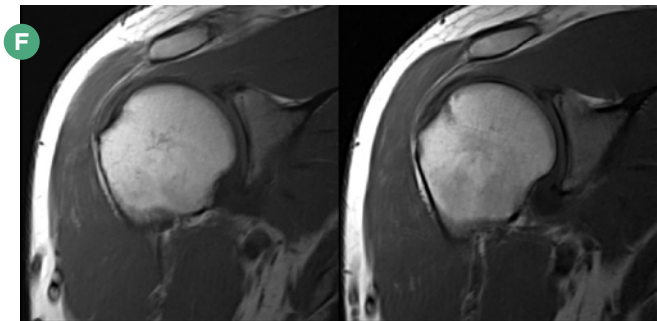
T2 Coronal Wrist



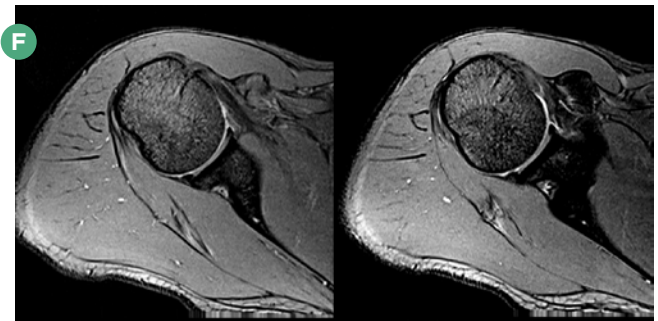
Proton Density Coronal Wrist with FatSat



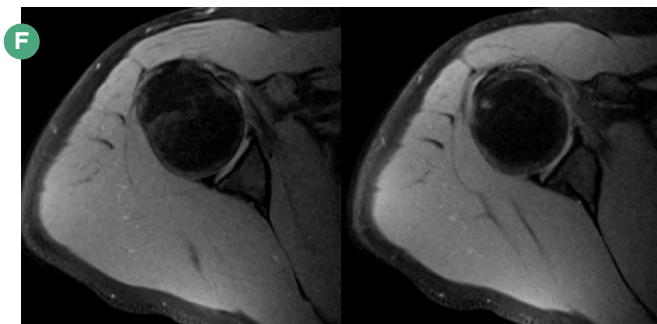
T2* weighted Coronal Wrist



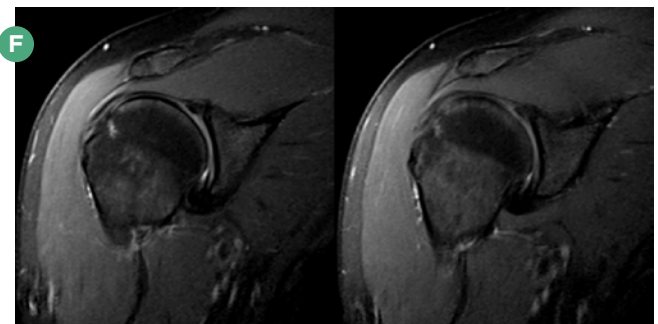
T1 weighted Coronal Shoulder



T2* weighted Axial Shoulder



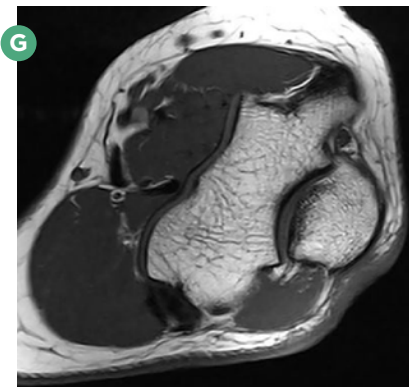
Proton Density Axial Shoulder with FatSat



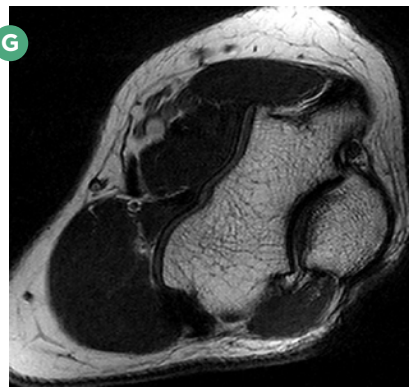
Proton Density Coronal Shoulder with FatSat

E Phased Array Hand/Wrist

F Phased Array Shoulder



T1 Axial Elbow - Small Flex



T2 Axial Elbow - Small Flex



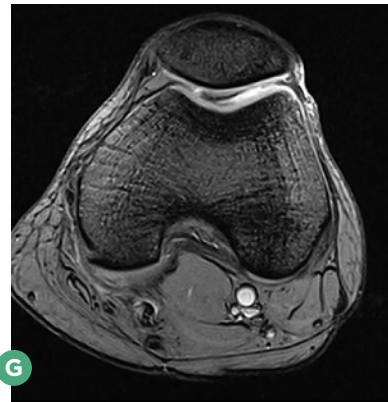
T2* Coronal Elbow - Small Flex



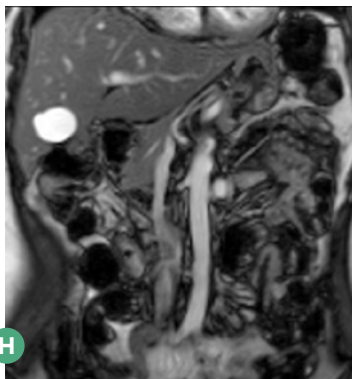
PD Sagittal Knee w/ FatSat - Large Flex



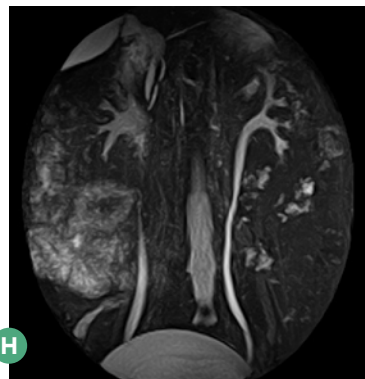
T2 Sagittal Knee - Large Flex



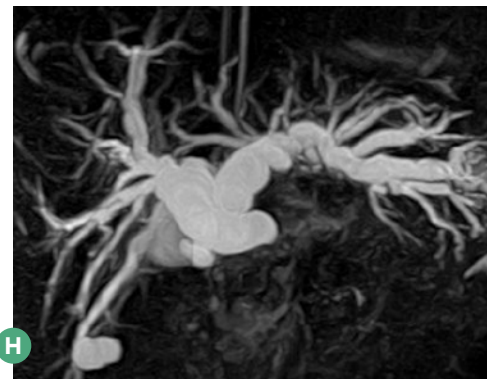
T2* Axial Knee - Large Flex



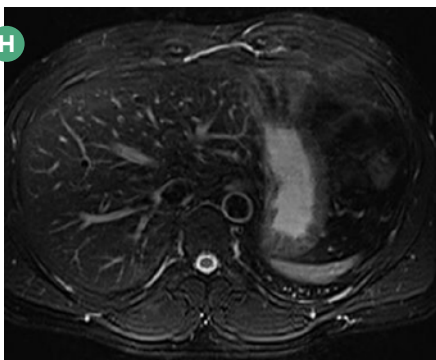
T2* Balanced Abdomen



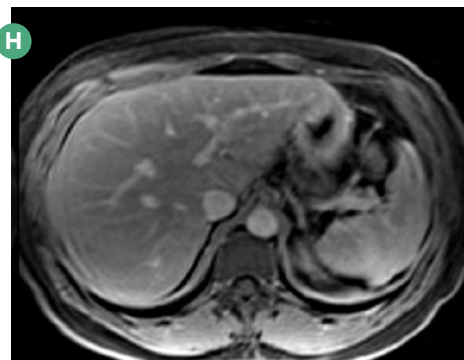
3D Single-Shot Fast Spin Echo MRU



T2 3D Fast Spin Echo MRCP



T2 Abdomen with FatSat



3D T1 Axial Abdomen with contrast

G Multi-Purpose Flexible Arrays - Small and Large Sizes

H Phased Array Torso Coils - Small, Medium, and Large Sizes

Product Features

MAGNET	<ul style="list-style-type: none"> Ultra-homogeneous main magnet field, < 5 ppm over 45cm DSV Usable FOV of 50cm in all directions ZBO (zero boil-off) virtually eliminates cryogen consumption Recommended helium refill interval of 10 years 	USER INTERFACE	<ul style="list-style-type: none"> Rapid start-up One-button plan setup High throughput protocols while retaining full user customization Integration to PACS and HIS/RIS systems via DICOM 3.0 protocols
RF SYSTEM	<ul style="list-style-type: none"> Combination of integrated phased array high-density coil elements 4 distinct coil arrays can be connected simultaneously for whole body imaging without repositioning 	DATA ACQUISITION AND PPI	<ul style="list-style-type: none"> 16-channel data acquisition system Latest generation parallel imaging (PPI) accelerates scan times while delivering the highest quality images Multiple phased array coils collect signals simultaneously

Advanced Software Applications

NEUROLOGY	<p>Protocols for head and spine exams optimized for high resolution and SNR, including protocols for fast and post-contrast exams.</p>		
Advanced DWI	<ul style="list-style-type: none"> • Multiple b values (5) • Multiple directions (21) • Auto ADC Maps 	<ul style="list-style-type: none"> • Single directional DWI • Average DWI Maps 	<ul style="list-style-type: none"> • Shorter ETL for improved DWI • Flexible PPI factors from 1.0 to 2.0
Isotropic 3D T1	<ul style="list-style-type: none"> • Shorter scan time with increased resolution • Reliable image quality 		
DTI	<ul style="list-style-type: none"> • Advanced Diffusion Tensor Imaging acquisition software for off-line processing 		
BODY	<p>Clinically optimized protocols provide comprehensive capabilities ranging from routine imaging to specialized imaging strategies unique to oncology.</p> <p>Ultra-fast breath hold protocols such as single shot, balanced, and in- and out-of-phase optimized sequences.</p> <p>Optimized free breathing protocols for uncooperative patients.</p> <p>3D T1 protocols optimized for excellent spatial and temporal resolution in dynamic post-contrast exams.</p> <p>MR Cholangiopancreatography and Urography protocols.</p> <p>Multiple b-value DWI imaging for pathological differentiation.</p>		
Advanced Spectrum FatSat SPAIR/SPIR	<ul style="list-style-type: none"> • Advanced pulse selection to produce consistent FatSat results for large anatomy imaging. 		
Magnitude Recovery	<p>T2 weighted imaging using a shorter TR.</p> <p>T2 weighting, contrast enhanced, with the use of Magnitude Recovery.</p>	<p>Partial Fourier Transformation (PFT)</p> <ul style="list-style-type: none"> • 40 percent scan time reduction • Fast reconstruction • Support for Gradient Echo and Spin Echo sequences 	
In- and Out-of-Phase Imaging	<p>In- and out-of-phase in one breath hold for spatial consistency</p>		
Balance/MF-SSFP	<p>True steady-state ultra-fast GRE protocol for motion-free abdominal imaging</p>		
Advanced Volume Imaging of Abdomen	<ul style="list-style-type: none"> • Fast uniform fat suppression • Ultra short TR TE, very low FA, provides excellent T1 contrast 	<ul style="list-style-type: none"> • Fast 14- to 18-second scan time for breath-hold exams • Compatible with slice interpolation and PFT for high resolution and shorter scan times 	
Body DWI	<ul style="list-style-type: none"> • Rapid acquisition • Multiple b values • ADC map 		
MUSCULOSKELETAL	<p>Clinically optimized protocols for high resolution orthopedic exams</p> <p>Full 50cm FOV for high-quality off-center imaging with homogeneous fat suppression</p>		
MTC Plus T2* Flash	<ul style="list-style-type: none"> • Orthopedic and spine imaging • Delivers excellent tissue contrast between cartilage, joint fluid, bone, muscles, and ligaments. 		
Dedicated anatomical coils deliver high resolution and SNR in joint imaging	<ul style="list-style-type: none"> • Dedicated and Multi-Purpose joint coils are available in a variety of sizes, specially designed to provide excellent image quality and flexibility with high resolution and SNR. • Optimal coil placement directly on the anatomy, providing excellent image quality. 		
ANGIOGRAPHY	<p>Clinically optimized contrast or non-contrast angiography protocols for arterial and venous imaging.</p> <p>TOF 3D Multi-volume and 2D protocols with very high resolution for non-contrast angiography</p> <p>2D fast bolus tracking interface for contrast enhanced angiography studies</p> <p>Auto-MIP and background subtraction for optimal vessel visualization</p>		
CE-MRA Package	<ul style="list-style-type: none"> • Fast scan with very short TR and TE • K-space center filling 	<ul style="list-style-type: none"> • Automatic MIP processing • Automatic subtraction processing 	
Interactive Bolus Detection	<ul style="list-style-type: none"> • Interactive real-time scan and display • ROI signal intensity Auto-Switch • Manual-Switch 	<ul style="list-style-type: none"> • Subtraction for better bolus view • User-friendly interactive design 	



“Our customer’s needs are our highest priority.”
- Gurmit Lotey, **Director of Customer Support**

Full-service customer care you can depend on

We provide our customers with engineering support, on-site training, and customer service tailored to the needs of each organization. From installation to routine maintenance or emergency service, our front-line field technicians, supported by systems architects, provide fast, effective solutions.



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