OASIS™

High-Field, Bore-Less MR

Comfortably meeting your MRI challenges

HITACHI
Inspire the Next

High-Field Imaging Excellence

"The Hitachi Oasis has essentially made our Open MRI services limitless. Patients are able to tolerate its wide open design very well. The image quality is exceptional. Our radiologists have expressed that, in some cases, the image quality exceeds even that of our 1.5T conventional MRI system."

Sandra Holman
Administrative Director
Frye Regional Medical Center

"In the first seven months working with the scanner, we have seen a 19% incremental increase in patient volume. The OASIS now handles the bread-and-butter outpatient exams and it can also handle patients who are not candidates for either of the closed-bore 1.5T or 3T magnets at SLU Hospital."

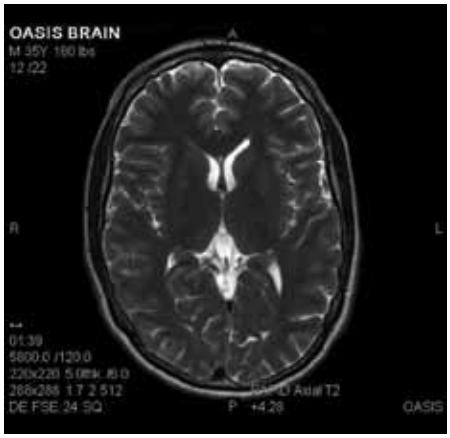
Jeffrey Dossett
Director of Imaging Services
St. Louis University Hospital

Contents

- RADAR minimizes motion and flow effects. Complete brain studies can be done with RADAR
- RAPID™ parallel imaging technique, enables short scan times
- High performance gradients drive fast, high resolution studies
- HOAST™ promotes fat saturation uniformity for small and large FOV
- Diffusion Weighted SS-EPI with seamless ADC map and isotropic DW image creation
- Zenith RF coils drive high resolution imaging with high SNR

Neuro - Brain

RADAR assures a diagnostic result even when there is extreme patient motion



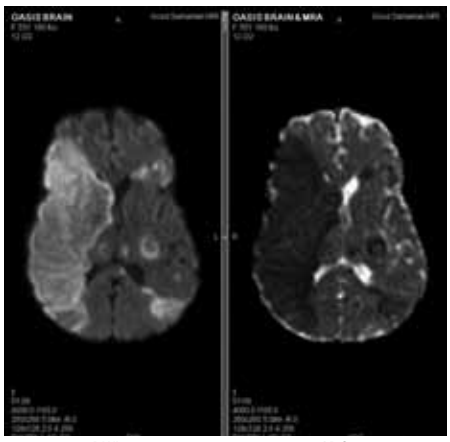
RAPID and Driven Equilibrium promote fast scans with high SNR

Resolution: <0.6mm
Slice: 1.0mm
Scan time: 3:40

Resolution: <1mm
Slice: 3.0mm
Scan time: 3:45

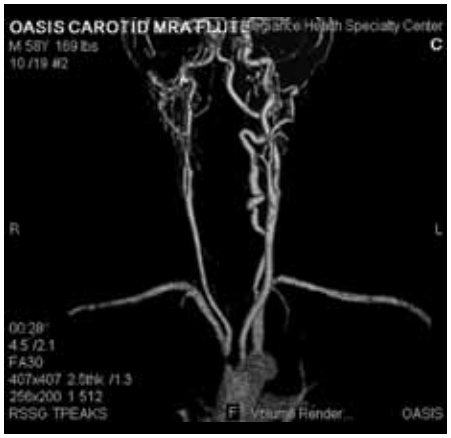
Thin slices and high resolution with short scan times

HOAST delivers excellent fat saturation



DWI ADC

RAPID reduces susceptibility artifacts on SS-EPI diffusion



Large field of view, high resolution and high signal uniformity with Oasis NeuroVascular Coil

- RADAR minimizes motion and flow effects. Complete spine studies can be done with RADAR
- RAPID parallel imaging technique enables short scan times
- High performance gradients drive fast, high resolution studies
- primeFSE reduces susceptibility artifacts from prostheses
- HOAST promotes fat saturation uniformity for small and large FOV
- BASG delivers excellent nerve root delineation
- Zenith RF coils drive high resolution imaging

Neuro - Spine

Spin Echo - T1W

T1 FLAIR

DE-FSE T2

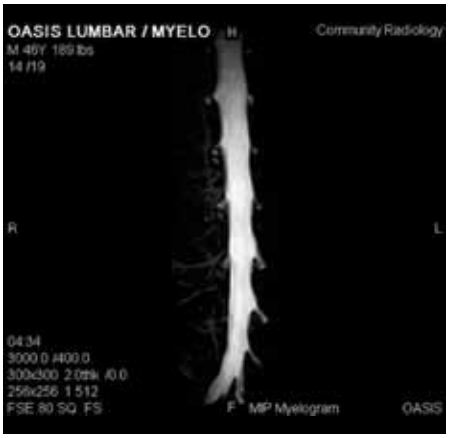
Complete study can be done using RADAR to minimize artifacts from voluntary or involuntary motion

Driven Equilibrium keeps scan time low for T2 weighting

Fast gradients deliver T1 weighting in a short scan time

HOAST promotes excellent large field of view fat sat saturation

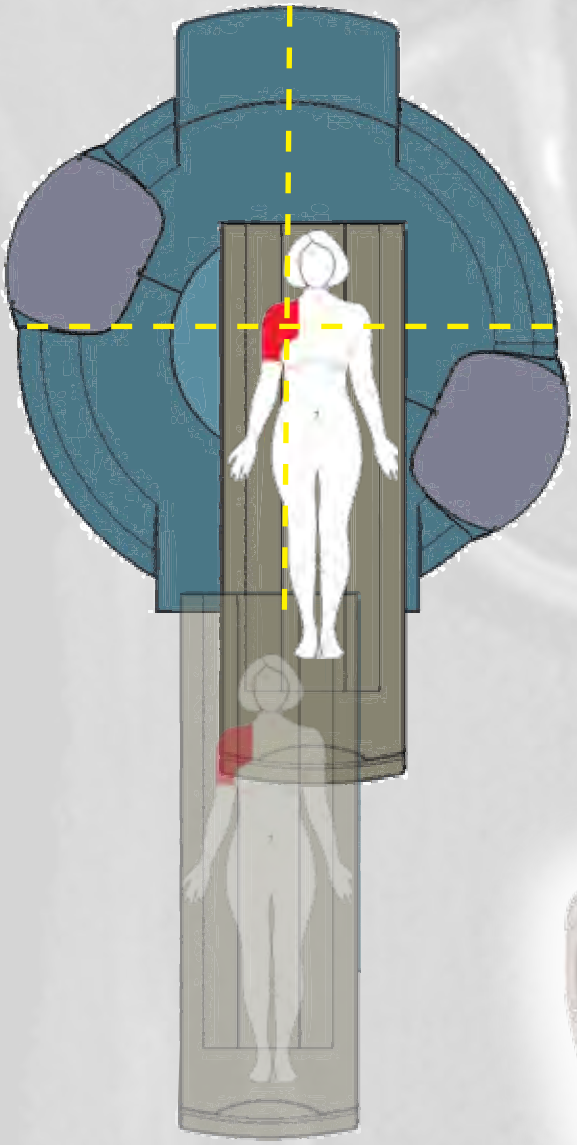
primeFSE minimizes susceptibility artifacts from prostheses



Myelogram at 400ms TE and 80ETL

Nerve root detail with BASG sequence

- Isocenter positioning enabled with lateral movement and wide patient table
- Dedicated RAPID orthopedic imaging coils for high SNR and signal uniformity
- HOAST and regional shimming deliver outstanding extremity RF fat saturation
- RADAR motion compensation
- Driven Equilibrium FSE enables heavy T2 weighting with fast scan time



MSK - Upper

Oasis' extra-wide patient table can move laterally to position anatomy of interest on iso-center. The result is high image quality with the patient maintaining a comfortable position.

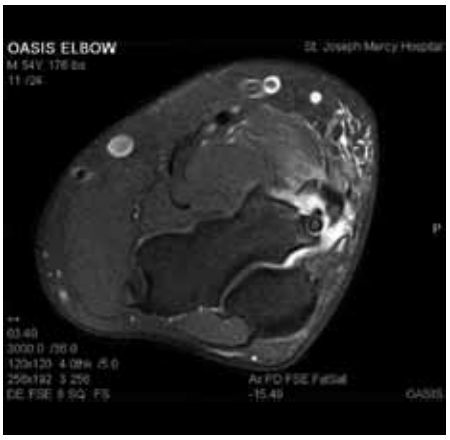
Scan time: 3:33
Resolution: <0.53mm

Scan time: 5:02
Resolution: <0.40mm

Scan time: 3:35
Resolution: <0.40mm

Oasis' powerful gradients promote high resolution imaging with fast scan times

Excellent cartilage depiction with RSSG or BASG and water excitation



Driven Equilibrium for PD weighting with fat saturation

- Isocenter positioning enabled with lateral movement and wide patient table
- Dedicated RAPID orthopedic imaging coils for high SNR and signal uniformity
- HOAST and regional shimming deliver outstanding extremity RF fat saturation
- Water Excitation with 3D Gradient Echo sequences for cartilage imaging
- primeFSE reduces susceptibility artifacts from prostheses
- RADAR motion compensation
- Driven Equilibrium FSE enables heavy T2 weighting with fast scan time

MSK - Lower

Oasis' extra-wide patient table can move laterally to position anatomy of interest on iso-center. The result is high image quality with the patient maintaining a comfortable position.

Oasis' powerful gradients promote high resolution imaging with fast scan times

primeFSE provides for imaging in the presence of prostheses

Excellent cartilage depiction with RSSG and water excitation

Driven Equilibrium fast IR (FIR) with fast scan time

- TIGRE™ fat suppressed 3D dynamic imaging for thin slice and complete organ coverage
- RAPID reduces breath hold and study times. RAPID 3D accelerates volume acquisitions for dynamic imaging
- RADAR for comprehensive free breathing abdominal series
- HOAST optimizes field uniformity for excellent image quality and fat suppression
- In-phase/out-of-phase results in one breath hold
- Large to small FOV capability promoted by sensitive RF Coils

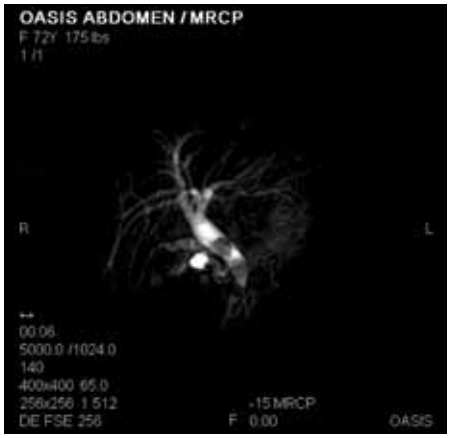
Pre

Post

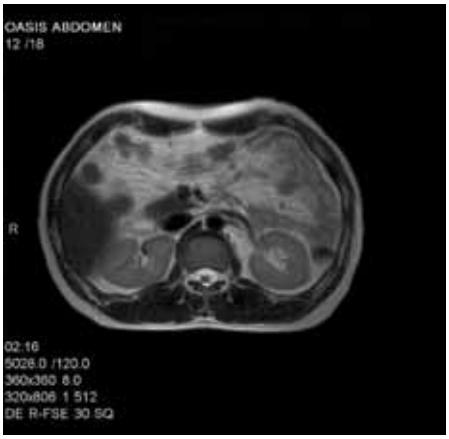
Post + 5 min.

TIGRE Gradient Echo Sequence for T1 weighting with fat saturation for dynamic liver maging. Fast, 18-second breath hold

Excellent uniformity over large fields of view



MRCP with heavy T2 weighting and MIP processing



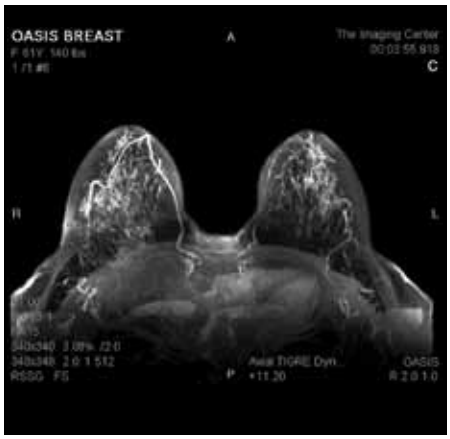
Free breathing kidneys with RADAR

Dual echo gradient echo provides in-phase and out-of-phase images in a single, 23-second breath hold

Excellent soft tissue depiction with water excitation

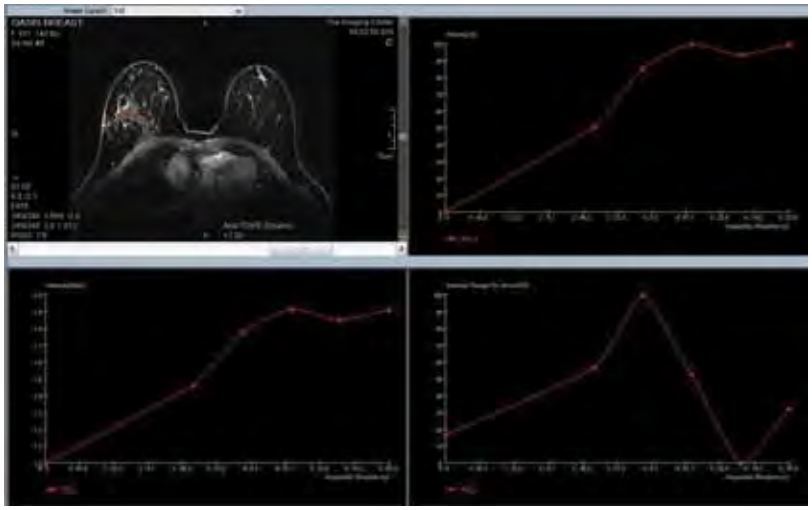
- TIGRE for dynamic studies meets ACR guidelines
- RAPID 3D further accelerates volume acquisitions
- Sensitive Breast RF Coil delivers bilateral, high SNR coverage and patient comfort
- Workflow-focused image processing
- Automatic position correction and subtraction
- DICOM exportable time/intensity curves
- Compatibility with CAD

Driven Equilibrium T2 Weighting



Maximum Intensity Projection

8-channel bi-lateral breast coil provides for high SNR and RAPID parallel imaging



Dynamic Tissue Intensity analysis. Images can be sent by DICOM to a separate CAD workstation

RADAR reduces motion artifacts

Uniform fat saturation with HOAST

High resolution pelvic imaging

Pre

Post

Post + 1 minute

Dynamic acquisition in full compliance with ACR Guidelines:

- Sub-millimeter in-plane resolution
- ‹3mm slice thickness
- Bilateral imaging
- Repeat series in 3 min or less (typically ‹90 sec)

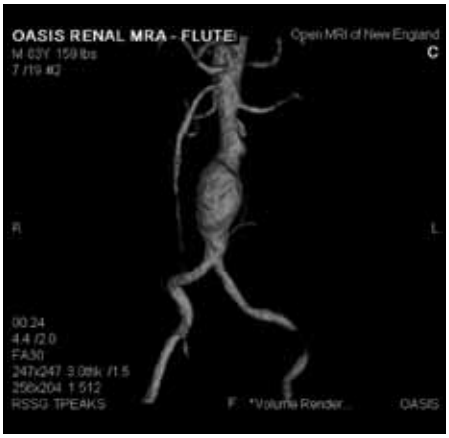
- 2D and 3D TOF for intra-cranial and extra-cranial imaging
- FLUTE™ ensures arterial phase capture
- TPEAKS™ centric k-space filling
- TRAQ MRA depicts blood flow dynamics
- PVA with multi-coil connections, auto table movement, and large FOV
- VASC™ non-contrast MRA for renal, carotid and peripheral applications
- Dedicated RF Coils provide outstanding coverage and uniformity
- Volume Rendering and auto MIP preview

Vascular

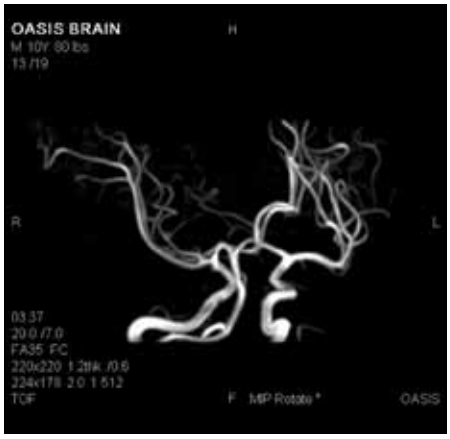
FLUTE, fluoro triggering, and TPEAKS ensure excellent depiction of the arterial phase

Auto Table Step enables multi-station runoff studies. Image stitching creates a single image for archive or export

VASC for high quality MRA without a contrast agent



Volume rendering helps visualize vascular abnormalities

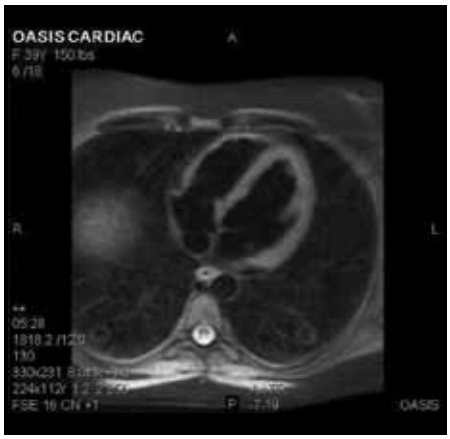


Sensitive Zenith RF coils provide for high SNR and uniformity and large field of view

Sensitive Zenith coils provide detail in lower vasculature

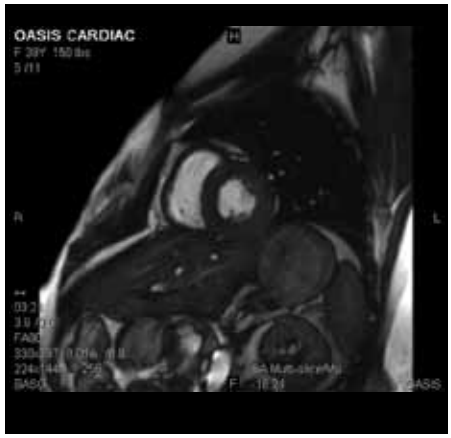
- Flexible, workflow-focused tools to assess cardiac morphology and function
- Double and triple inversion recovery breath hold acquisitions
- Navigator echo free-breathing scan
- RAPID parallel imaging increases temporal resolution and image quality
- Multi-slice, multi-phase cine
- Viability assessment benefits from powerful gradients and sensitive RF Coils

Double Inversion Recovery



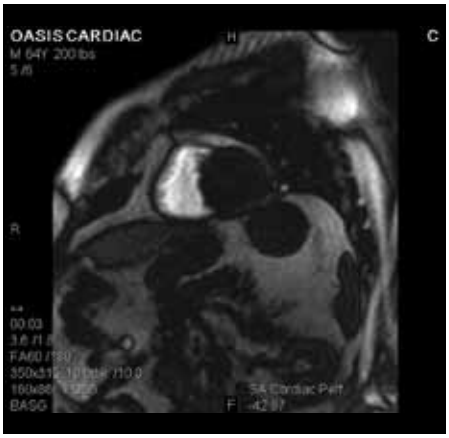
Triple Inversion Recovery

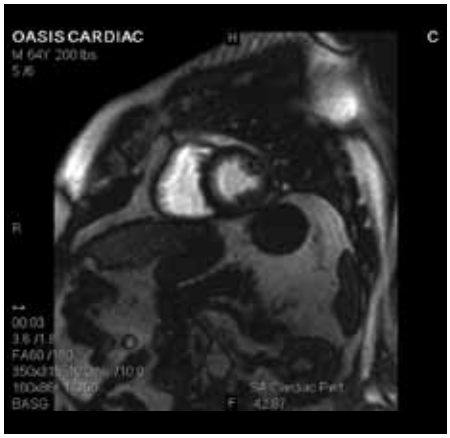
Free breathing navigator echo

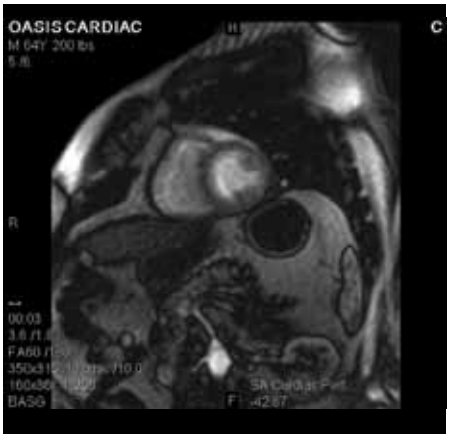


Multi-slice/multi-phase cine for functional assessment

Myocardium assessment with delayed enhancement



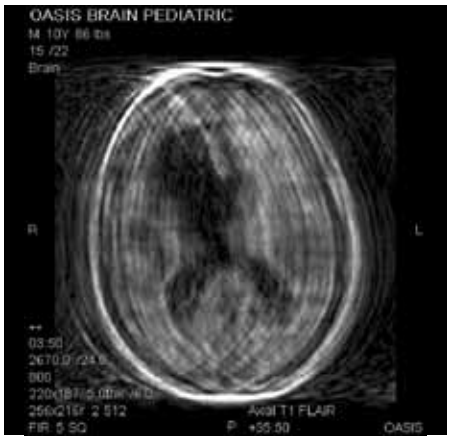


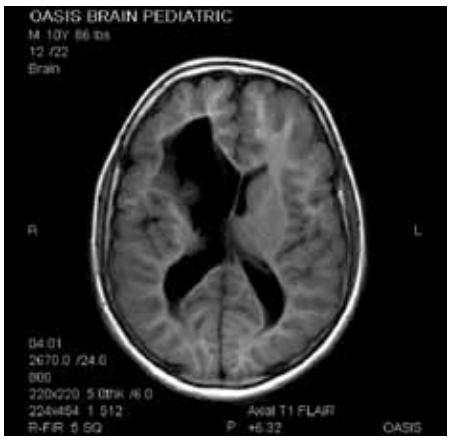


Viability assessment with dynamic tissue intensity

- Imaging free of ionizing radiation – a safer alternative for pediatric patients
- Constant parent-child contact dramatically improves patient compliance
- RADAR motion free imaging eliminates repeat scans and improves image quality
- Fast scanning techniques keep study time minimal
- Halo coil delivers quality imaging and an all-around view

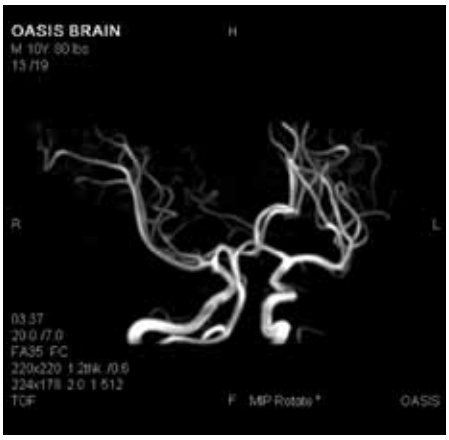
Pediatric

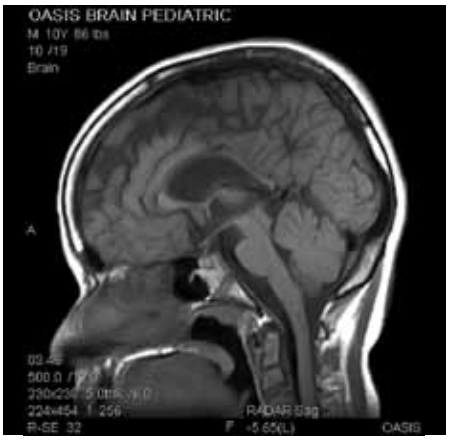




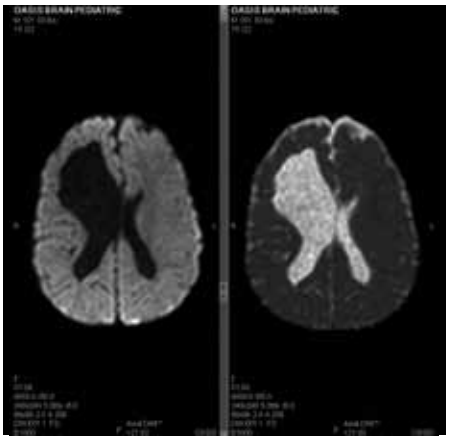
Oasis' RADAR feature delivers diagnostic results even with non-compliant patients

White matter suppression with primeFIR





High quality pediatric head imaging with the solenoid "halo" coil



Echo Planar sequence for DW weighting with ADC

FOV: 14cm
Resolution: <0.73mm

Small FOV – High resolution MSK imaging

Out of phase Gradient Echo

Aortic arch

High SNR Body Imaging

- Oasis' coil offerings accommodate larger patients while maintaining high SNR
- NATURAL™ provides signal intensity compensation necessary for larger patients
- Optimal image qualtiy with iso-center positioning for even the largest of patients
- 82 cm wide patient table with 660 lb. capacity
- Extra large flexible body coil for patients at the extreme of the demographic spectrum
- Integrated transmit/receive coil for good imaging results if no other coil is appropriate

NATURAL provides signal compensation necessary in spine studies for larger patients

Scan Time: 3:43

Driven Equilibrium combines with prime-FIR to keep scan time low

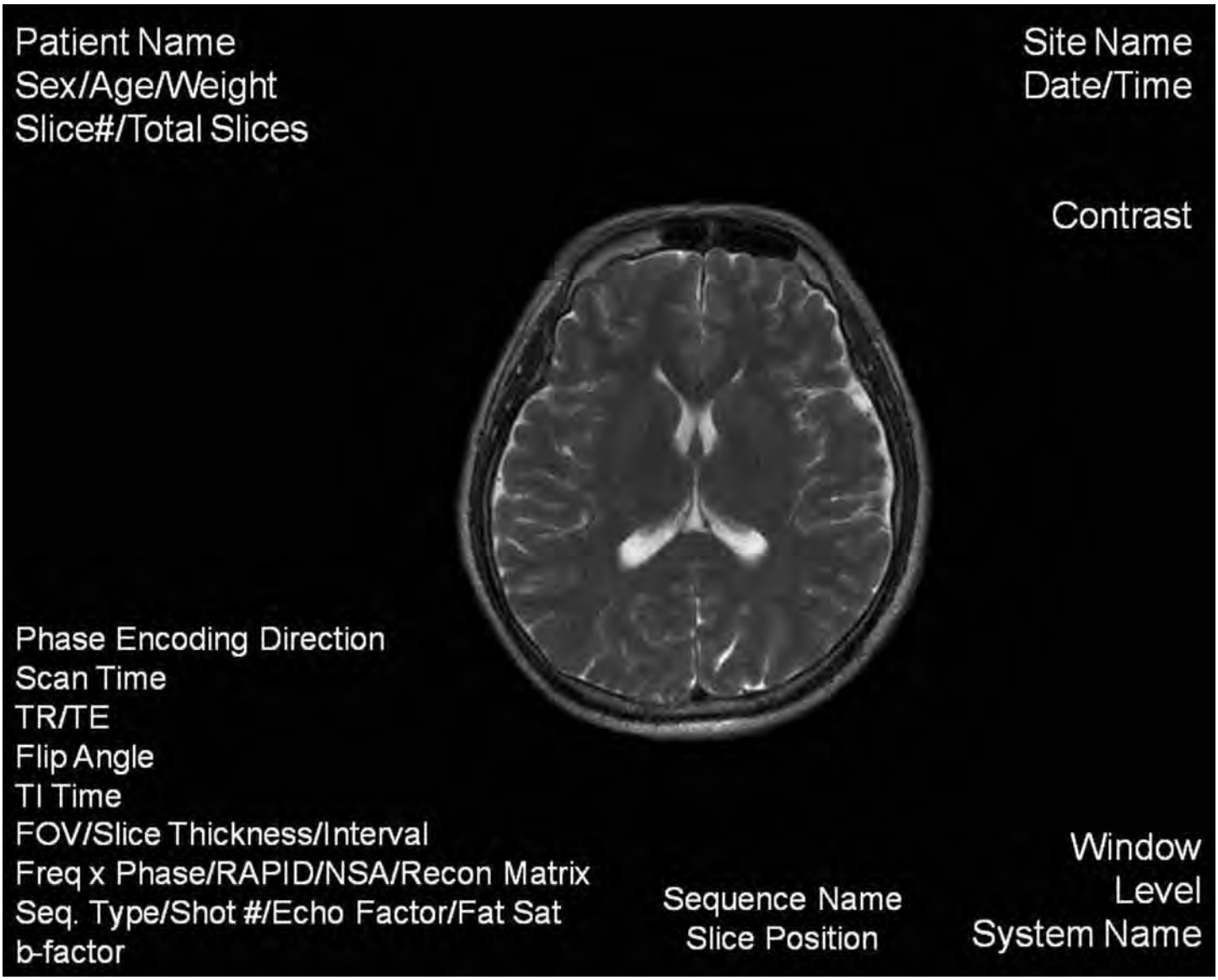
FOV: 40cm

High quality body imaging with the Extra Large flex body coil

MSK imaging of large patients is less challenging with Oasis due to the wide open design, large table and iso-center positioning

Image Annotation Guide

Locations and meaning of annotation text used with Oasis images



OASIS™

Providing the images you need and the comfort your patients deserve

Critical Care

Pediatric

Anxious

Open Access

Bariatric

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