TOSHIBA

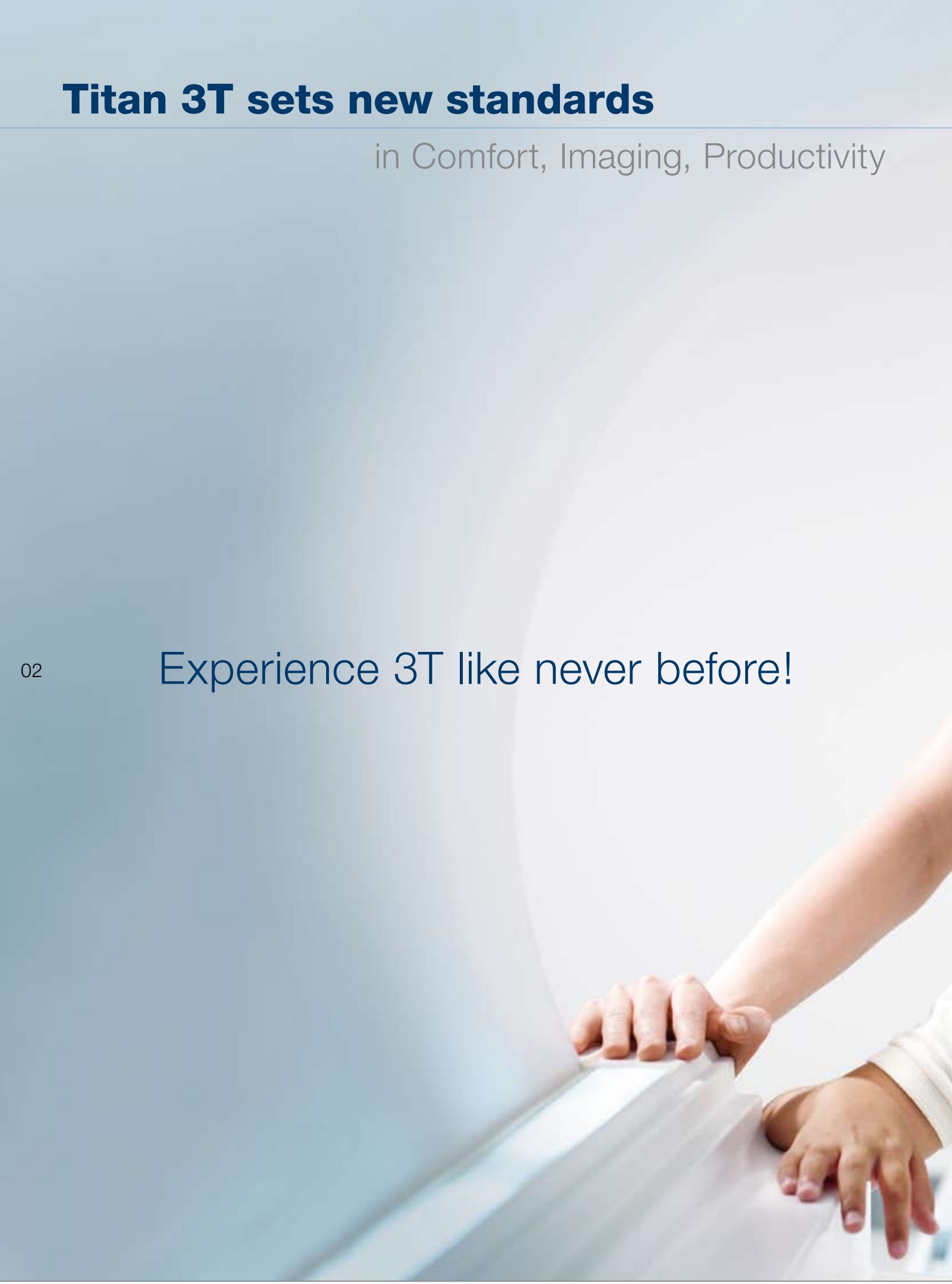
Leading Innovation

Vantage Titan 3T

Titan 3T sets new standards

in Comfort, Imaging, Productivity

Experience 3T like never before!



Titan 3T sets new standards in Comfort

The widest...

With the Toshiba's Titan series you provide unsurpassed comfort to your patient combining a short 1.6 meter magnet with a large 71 cm opening that reduce patient anxiety and allow 80% of the body to be scanned feet first.

71 cm

What do 71 cm bring in practice?

- More comfort for you patients
- Help against claustrophobia
- More space to fit patients of all sizes
- Reduce stress and anxiety
- Easy check-on and access-to your patient
- Ideal for paediatrics and geriatrics
- Ideal for breast imaging

The quietest...

Acoustic noise is an important source of problems on conventional 3T systems:

- It makes communication with the patient difficult
- It causes the patient discomfort
- It can induce transient or permanent hearing disturbance
- It poses a hazard for pediatric patients who need sedation

But did you know that Brain function requires additional attention resources under noisier conditions? Knowledge of the sound pressure level of acoustic noise during fMRI studies is nowadays required!

Toshiba's Unique technology "Pianissimo™" has been further improved and applied to provide the quietest 3T system one can get.

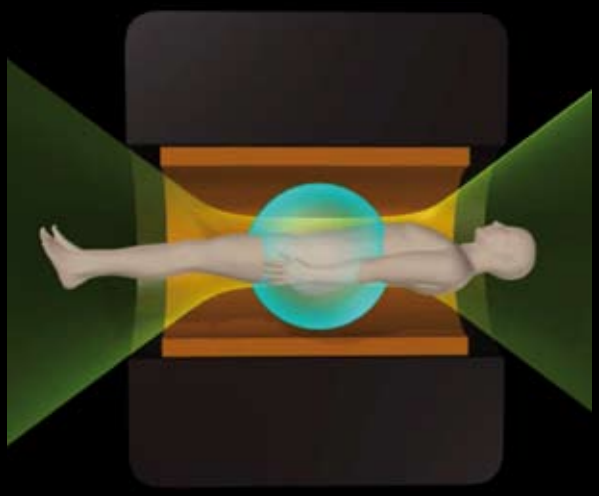
How does Pianissimo work?

- The gradient coil is vacuum-sealed. In absence of an atmosphere, the coil cannot transmit sound.
- Soft pulse sequences eliminate sharp edges in gradient waveforms, reducing the acoustic noise
- It incorporates special insulation between the vacuum vessel and the magnet to dampen sound and minimize the vibrations transmitted to the magnet.

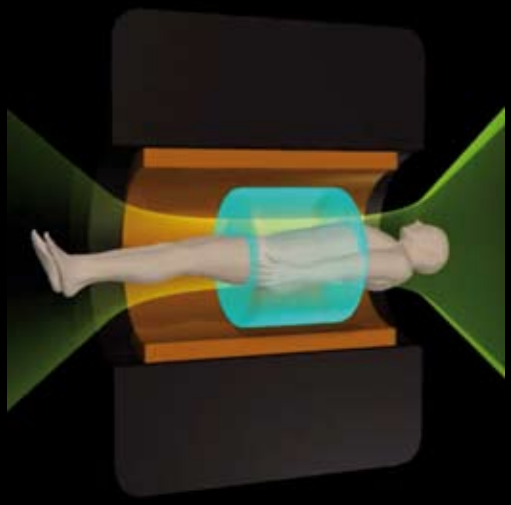
Titan 3T sets new standards in Imaging

Magnetic Field Homogeneity: B_0

Conventional



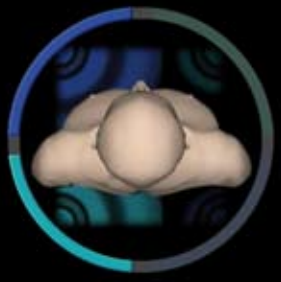
Conform

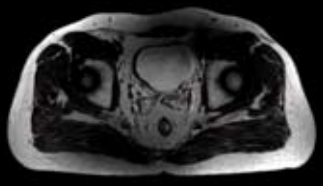


While conventional MR systems offer a spherical homogeneous area centered at the iso-center of the scanner, a cylinder corresponds better to the form of the human body. With Conform technology, Titan 3T offers a 50 x 50 x 45 cm cylindrical homogenous Field Of View.

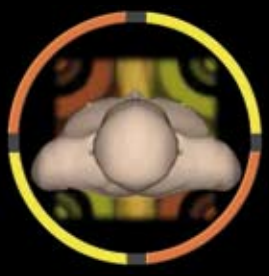
RF Field Homogeneity: B_1

Conventional



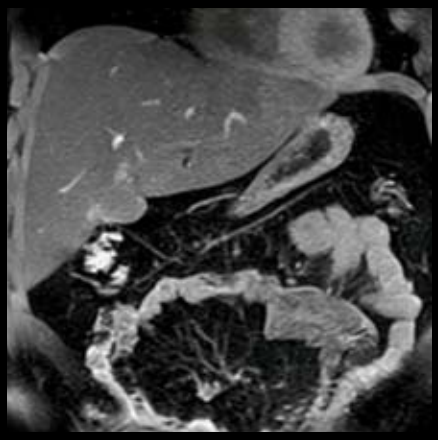


Multi Phase Transmit

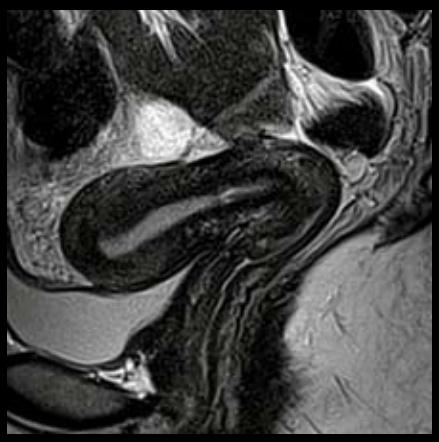


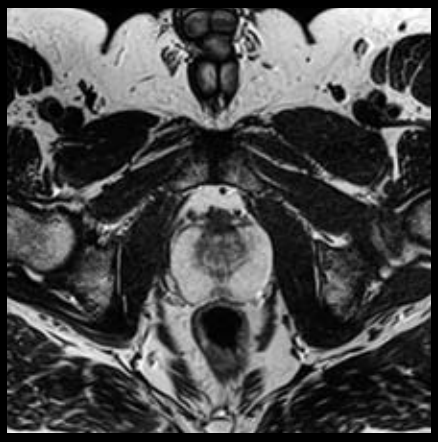
Titan 3T uses optimized amplitude and phase transmission called “Multi phase Transmit”. It has the functionality of a Multi-channel Transmit Array, using multiple ports and multiple phases for optimal B_1 homogeneity. It removes shading artifacts, improves SAR and reduces scan times by up to 40%

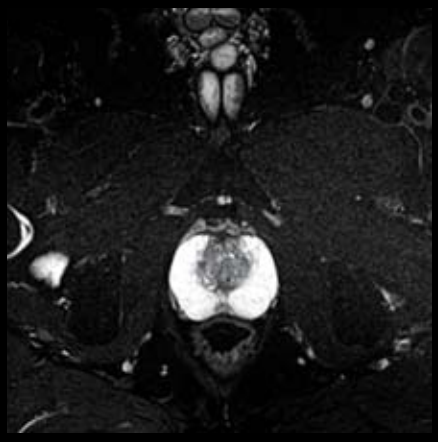
Exceptional Contrast Resolution…



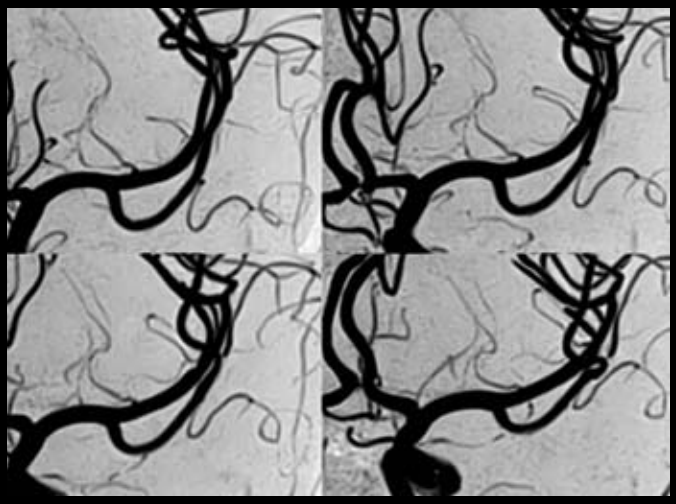
With Conform and Multi-Phase Transmit technologies, abdominal and pelvic imaging are no challenge on Titan 3T. No more shading on your T2-weighted (fast) spin echo images. No more uneven fat suppression on your images. You can use SSFP from head to toe!





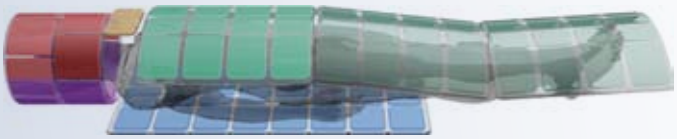


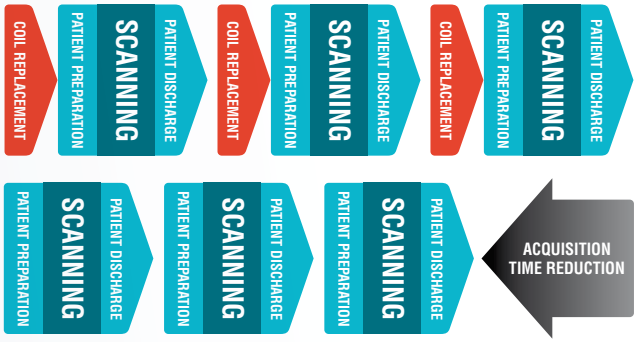
The optimal B_1 shimming reduces SAR limits considerably allowing you to truly exploit the extra signal your 3T system generates and therefore, you can further enhance the spatial and temporal resolutions of your studies.



Titan 3T sets new standards in Workflow

Atlas matrix coil system





No waste of time

In conventional MR systems, the organ specific coils require frequent coil exchange. The heavy weight of most coils makes the task tedious for the operators and the time devoted to this operation is wasted. With Atlas, coil repositioning is dramatically reduced; and the very few times it is required, the light weight of the coils makes it a fast and easy operation. This way, the workflow is significantly increased.

Key features

- Higher SNR
- High density of coil elements in the FOV (up to 36)
- High speed-up factors
- A total of 132 simultaneously connected coil elements
  Optimal for whole body imaging.
- Automatic coil selection
- Light coils (comfort for both patient and operator)
- Universal coils
- Significantly reduces the need for coil repositioning
- 40 element sliding spine coil integrated to the table
  Optimal for feet first imaging

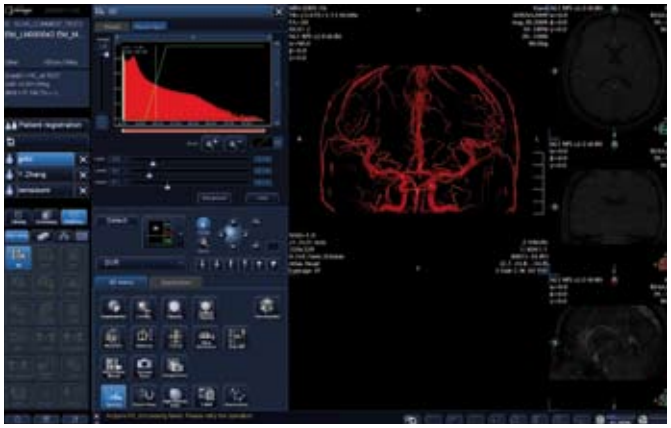
M-power

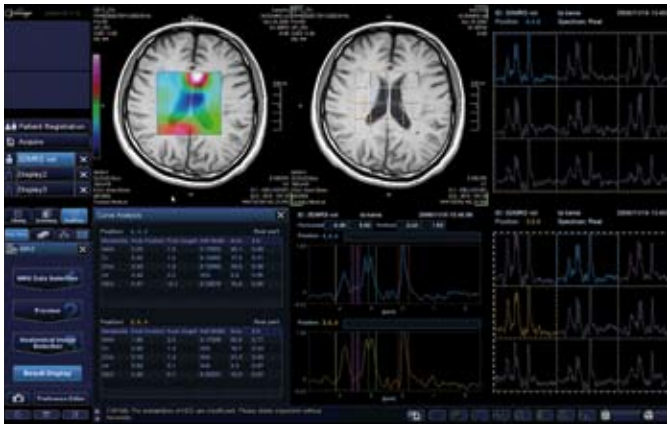
Titan 3T comes with the new cross-Modality Toshiba's software platform. The look and interactions of the user interface for common functionalities such patient registration, 3D post processing, data saving and forwarding, will be identical on Ultra sound, X-Ray, CT and MRI.

Simple work-flow

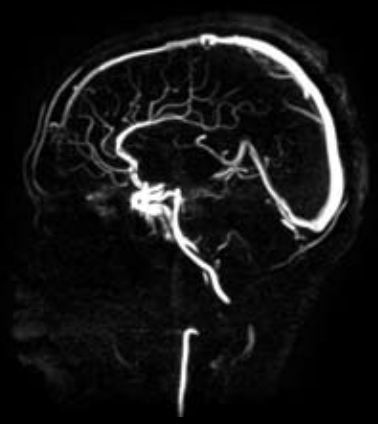
Register Patient > Scan > Post-processing > Save and forward

M-Power is an intuitive GUI for inexperienced or non-Toshiba MR users. It allows an efficient use of Titan 3T for an optimal workflow. It uses 2 quad processors and parallel processing for ultra fast image reconstruction. It offers advanced image processing, such as perfusion, diffusion, 3D volume rendering, spectroscopy and more. It offers the possibility for remote application training/support via a VPN connection



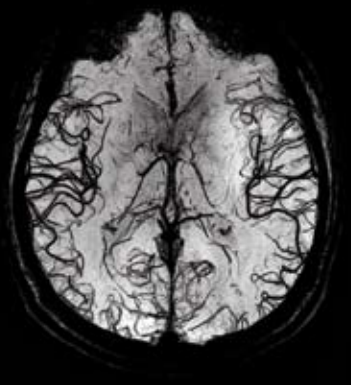


3T imaging from head ...

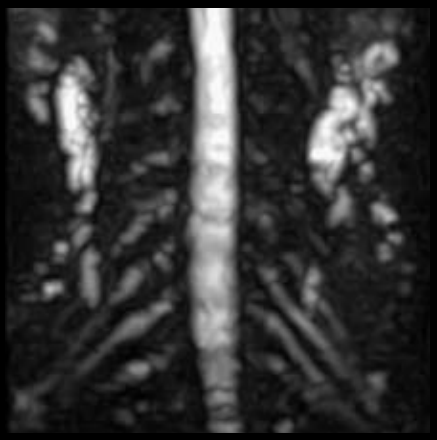


3D Phase shift MRA (0.5x0.5x3 mm)

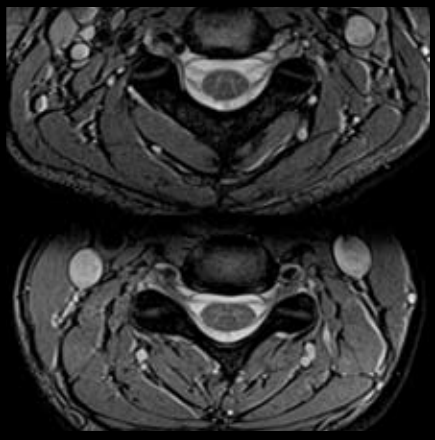
3D TOF-MRA (0.3x0.3x0.6 mm)



Flow sensitive black blood 0.2x0.2x0.5 mm



DWI with Fat sat. (0.8x0.8x4mm)



T2* -W (0.2x0.2x3 mm)

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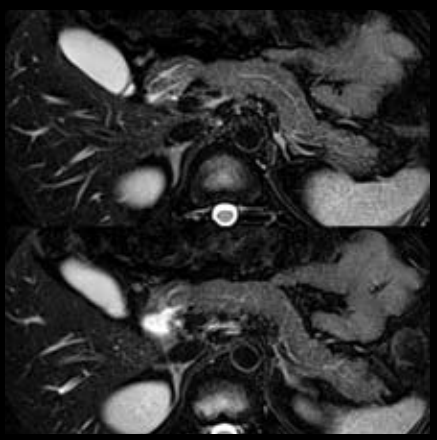
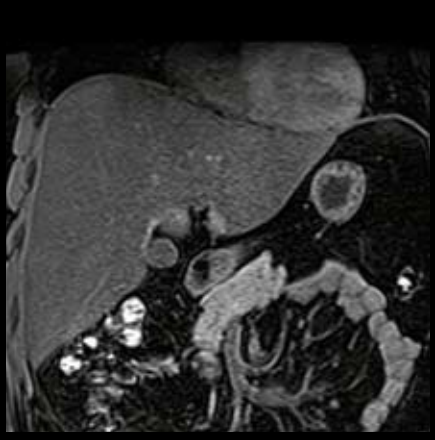


T2-W FSE with Fat sat (0.5x0.5x4mm)

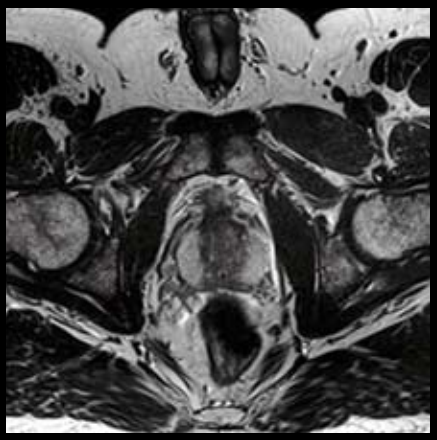


3D T1-W with Fat sat (1.2x1.2x3mm)

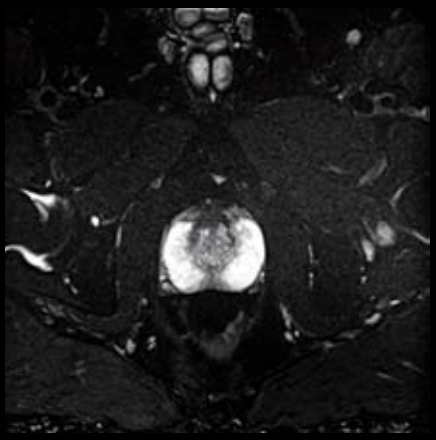
Time-SLIP NCE-MRA (0.5x0.5x2mm)

... to toe

T2-W FSE with JET (0.5x0.5x5mm)



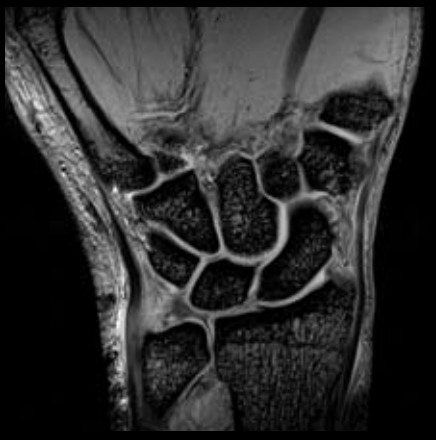
T2-W FSE (0.5x0.5x2.5mm)



T2-W FSE with Fat sat (0.5x0.5x2.5mm)

T2*-W (0.2x0.2x3mm)

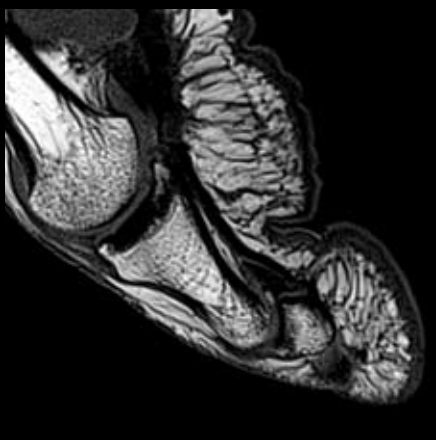
T2*-W (0.2x0.2x3mm)



T2*-W (0.2x0.2x3mm)

T2*-W (0.2x0.2x3mm)

FBI -3D FASE NCE-MRA (0.5x0.5x2 mm)



T1-W SE (0.2x0.2x2 mm)

TOSHIBA

Leading Innovation

Innovation by design

For over 130 years, Toshiba has led the world in developing technology to improve the quality of life. This Made for Life commitment is reflected in our family of leading-edge imaging systems for MRI, CT, ultrasound, cath labs, X-ray and nuclear medicine. From creating our first X-ray tube in 1915 to introducing the most advanced 320-row CT system, Aquilion ONE in 2007. Toshiba continues to build upon its legacy with technological innovation that improves patient care while providing lasting quality for a lifetime of value.

A Service Partner you can rely on

By specializing in diagnostic imaging, Toshiba has a unique understanding of its customers' needs. This enables the company to deliver a matching range of business services and expertise that are shared across a global sales and service network.

Both products and services give you a solid foundation for a lifetime of diagnostic confidence and growing effectiveness that benefits you and your patients.

Toshiba - A History of Leadership

1875 • Founding of Toshiba
1915 • First X-ray Tube
1989 • First Helical CT Scanner
1993 • First One-million-pixel CCD
1997 • First Open, Superconducting Magnet
1998 • Quietest 1.5T MRI System
2002 • First 400 msec CT Scanner
2003 • First 64-row CT Scanner
2003 • Ultra-short 1.5T MRI System
2007 • First 320-row dynamic volume CT Scanner
2007 • First 71 cm aperture in an open, ultra-short bore MR system
2009 • First 71 cm aperture in a 3T, ultra-short bore MR system

Made for Life™

TOSHIBA MEDICAL SYSTEMS

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TCAMR0003EC.EU

Toshiba Medical Systems Corporation meets internationally recognized standards for Quality Management System ISO 9001, ISO 13485.

Toshiba Medical Systems Corporation Nasu Operations meets the Environmental Management System standard, ISO 14001.