




# The first Open-Bore MRI

MAGNETOM Espree

Answers for life.

**SIEMENS**



# MAGNETOM Espree

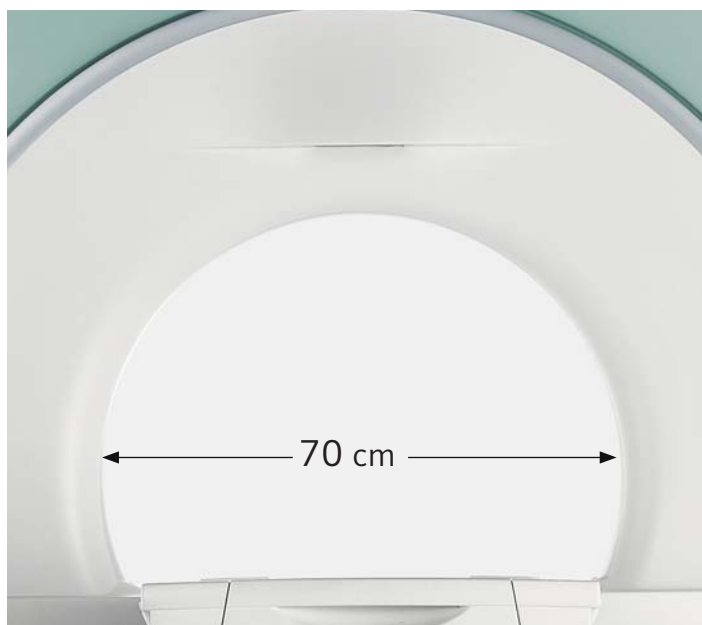
## The first Open-Bore MRI

Welcome to your equation for patient comfort, superior high-quality images, and effortless workflow. MAGNETOM® Espree is, quite simply, the best selling Open-Bore MRI on the market today.

With it, you'll experience revolutionary performance, increased patient satisfaction, and a broad array of applications enabling you to do more than you ever thought possible. Its 70-cm internal bore, short 125-cm system length, 1.5T field strength, and innovative Tim™ (Total imaging matrix) technology will widen your clinical capabilities and open the door to a broader patient referral base, improved throughput, and better profitability.



70 cm + 125 cm + 1.5T + Tim



## Revolutionary openness

With the MAGNETOM Espree, you – and your patients – can change the way you think about open MRI. The 70-cm inner diameter makes CT-like comfort possible for the first time in an MRI system. And, the system is remarkably short with 125-cm that enables head-out or feet-first for most exams.

When the patient's head is positioned inside the open bore – for instance with shoulder imaging – the MAGNETOM Espree provides 30 cm of space above the patient's face, about twice that of

traditional, vertical-field open magnets. As a result, patients are more comfortable, and more relaxed, during the exams.

But reducing patient anxiety is only one of your challenges. How do you image patients who are very obese, or have issues with pain or mobility? With ease, thanks to the MAGNETOM Espree's 250 kg / 550 lbs capable patient table and Tim technology, which enables scanning in positions not possible on vertical-field open MRI systems.

### Put your patients at ease

- 70-cm open bore
- 30 cm of face space
- Head-out exams

### Accommodate patients with special needs and conditions

- Pain and mobility issues
- Respiratory problems
- Kyphosis

### Broaden your clinical possibilities

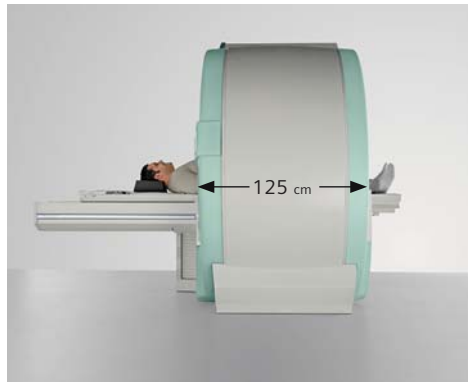
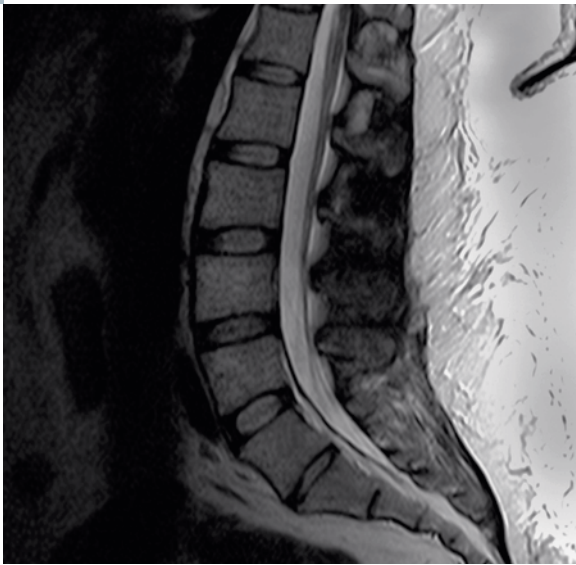
- Easy access in interventional MRI
- Opportunities to perform more kinematic studies

### Expand your care to a wider range of patients

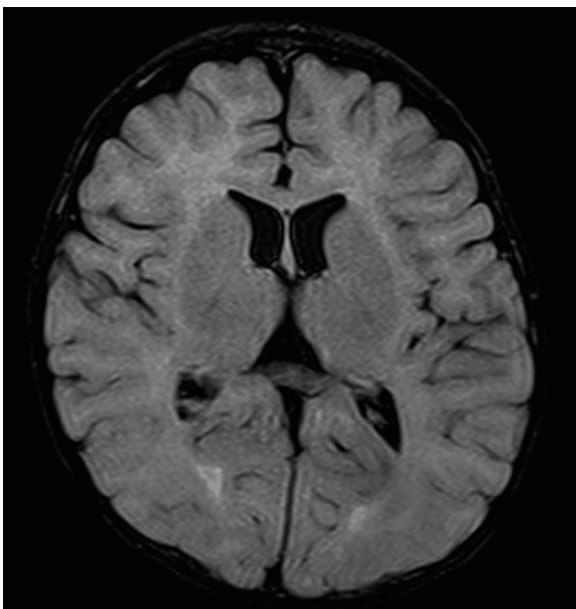
- Obese population (up to 250 kg / 550 lbs)
- Claustrophobic patients
- Pediatric\* and elderly patients
- ICU patients or those dependent upon medical equipment

\*The safety of imaging children under two years of age has not been established.





Head out for 60% of routine applications – with the shortest system length.



Offer 1.5T applications to larger patients – with a 250 kg / 550 lbs patient table limit.



Image patients with special needs.



## Revolutionary performance

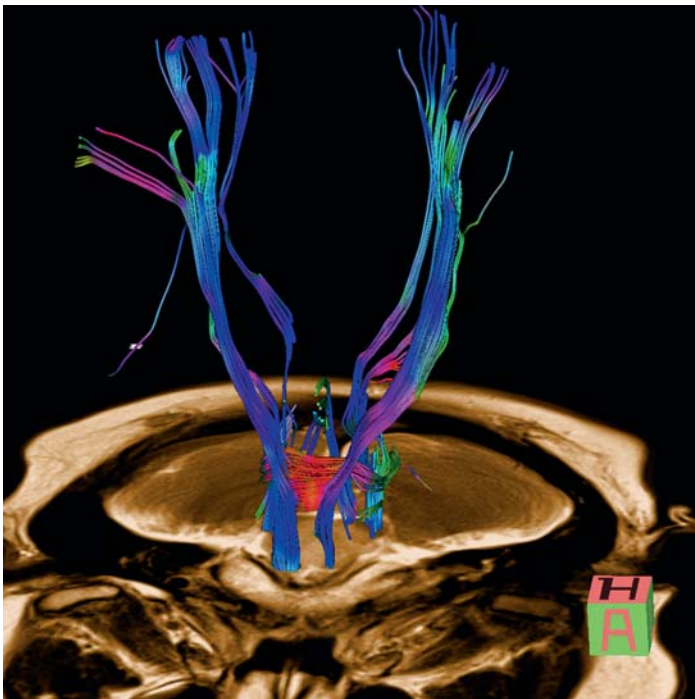
Picture the difference 1.5T can make: by combining a high-field 1.5T magnet with an open MRI, you can perform advanced imaging, no matter what your patient's size is. You'll be able to better address the patient's disease states with appropriate imaging techniques: from cardiac breath-hold studies to peripheral run-off exams, and more. All with superior, high-quality imaging never seen before in open MRI.

It's about improving your clinical confidence, regardless of patient size, with accuracy and speed. With its superior Signal-to-noise ratio, better contrast and shorter exam times, MAGNETOM Espree enables you to see what you are missing with other lower-field systems.

And with Tim technology, you'll have the most flexible access to large Fields of View. Traditional vertical-field open MRIs are restricted by the Field of View of each individual coil. But Tim allows you to combine elements from physically separate coils without patient repositioning or coil changes. The result? A much faster clinical routine that enables shorter exam times for you and your patients.



**0.1 mm spatial resolution:**  
High resolution and patient comfort. 1024 matrix.  
The wrist can be placed comfortably beside the body.



**Strong gradients:**  
MAGNETOM Espree is perfect for advanced applications.

**Large Field of View:**  
MAGNETOM Espree is the only  
Open-Bore MRI that combines true  
patient comfort with expanded  
Field of View of up to 205 cm.

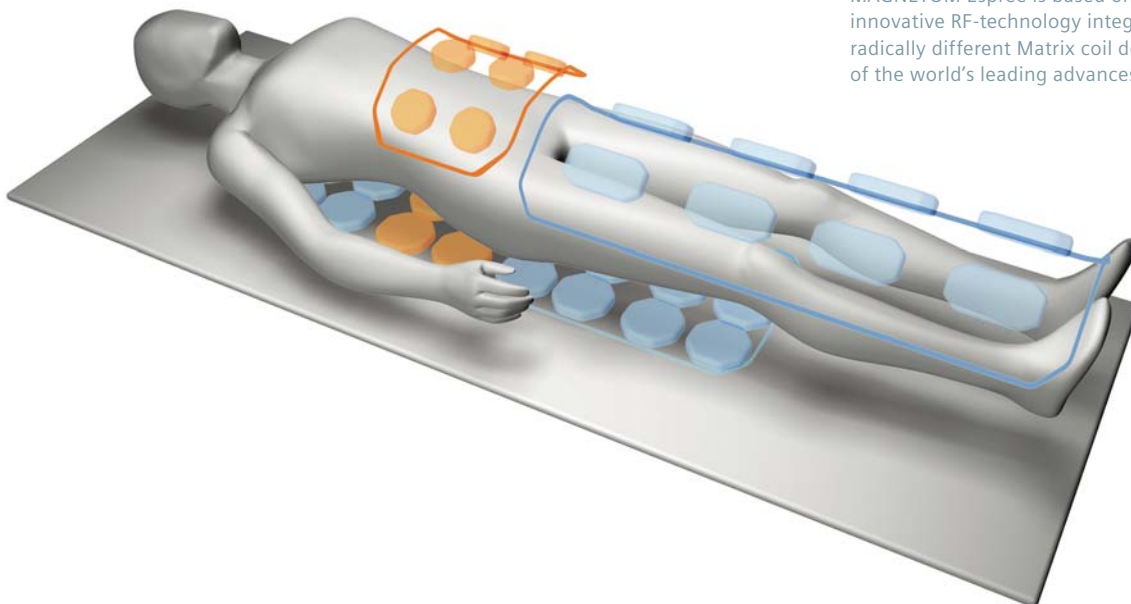




## Tim has changed MRI forever.

Today's clinical practices require fast and accurate diagnosis without compromising business demands. Tim (Total imaging matrix) was created to increase flexibility, accuracy, and speed, making every aspect

of your workflow more efficient and productive. No one else can offer the workflow benefits that Tim provides. And with thousands of installations, Tim keeps proving it every day.



MAGNETOM Espree is based on Tim, the most innovative RF-technology integrated with a radically different Matrix coil design. Truly, one of the world's leading advances in MRI.





**Flexibility.**  
Select exams, not coils.

[76x32]. Up to 76 seamlessly integrated matrix coil elements and up to 32 independent RF channels combined to create one Total imaging matrix. A matrix adjustable to both the pathology under examination and the individual patient.

**Accuracy.**  
Local and total.

Matrix coils unleash the high Signal-to-noise ratio (SNR) only local coils provide. Extreme precision from single organ up to whole-body exams. From 5 mm to 205 cm Field of View (FoV). Without coil or patient repositioning. For all applications. With up to 100% more SNR.

**Speed.**  
Parallel in all directions.

Head to toe, front to back, and side to side for unlimited Parallel Imaging. With up to PAT 16. Even for double oblique slice orientation. Without restrictions in coverage. With the high SNR of standard Matrix coils.

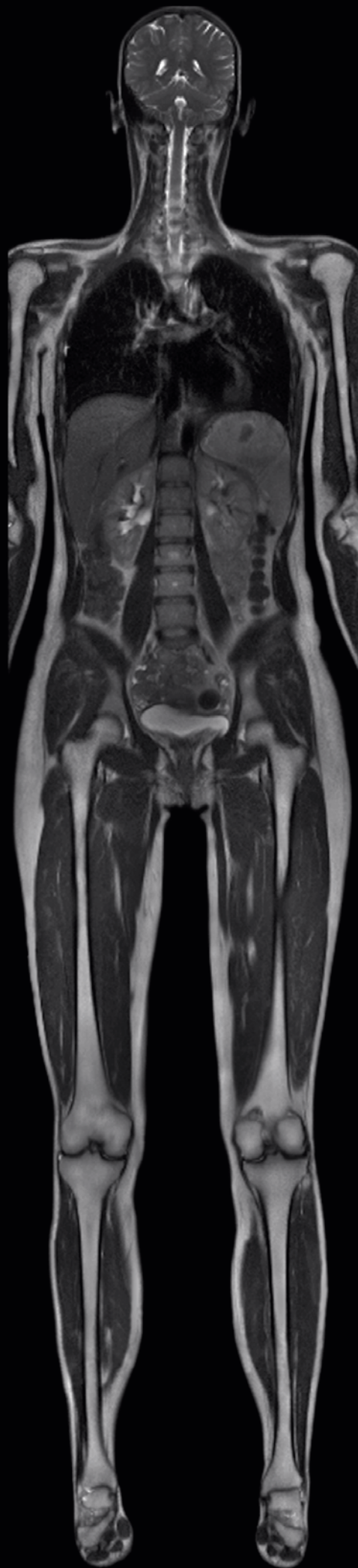


## Revolutionary applications

What are your most challenging applications? Stroke? Multi-step spines? Heart disease? MAGNETOM Espree can help you evaluate the most complex pathologies, efficiently. Combine the power and speed of MAGNETOM Espree with Siemens *syngo* MRI applications and you'll find innovations that will transform your workflow.

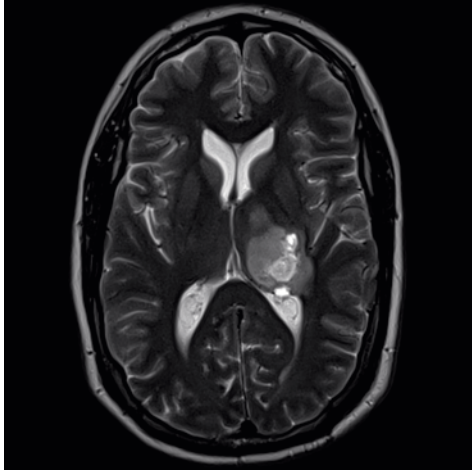
An easy-to-use interface, *syngo* streamlines your process, helping you to image patients of all sizes and conditions more efficiently, productively, and easily. Your staff members will appreciate the accuracy and speed with which they can work, and you'll appreciate the potential for increased throughput and patient volume.

Head, shoulder, knee, or toe?  
MAGNETOM Espree gives you total  
flexibility, with innovative applica-  
tions for each part of the body.  
And Tim seamlessly scans up to  
205 cm with no patient reposition-  
ing or coil changes. For true whole-  
body functionality.



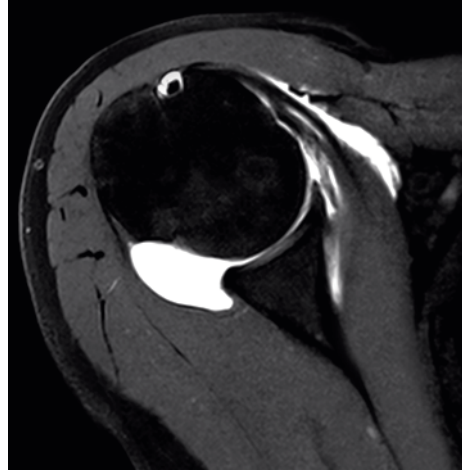
# Standard Tim Application Suite

MAGNETOM Espree is fully equipped with a broad range of dedicated applications. In each clinical field, the Tim Application Suite will help address your clinical needs without additional costs.



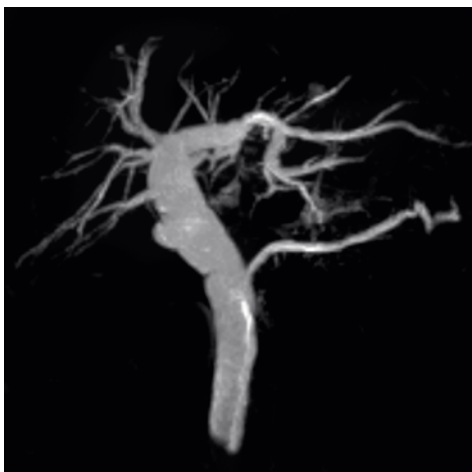
## Neuro

Evaluate disc herniation to advanced stroke with high-quality morphological and functional techniques.



## Ortho

Examine ligament tears to cartilage degeneration with high-resolution imaging.



## Body

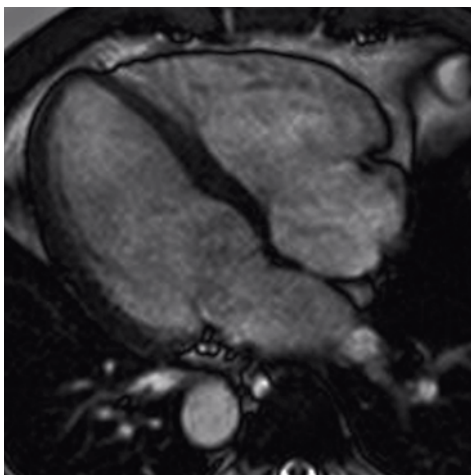
Perform free-breathing, high-resolution imaging for MRCP, pancreatic, and pelvic studies, with ease.



## Angio

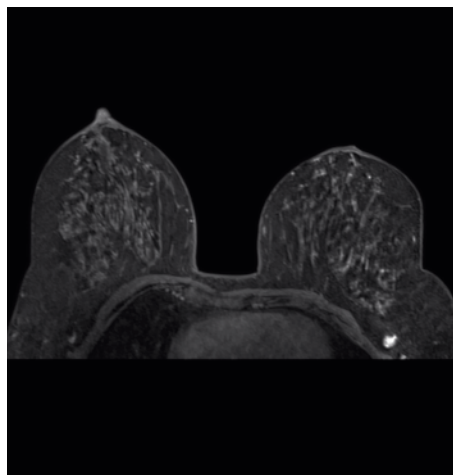
Depict vessel diseases with a wide range of contrast and non-contrast enhanced techniques.





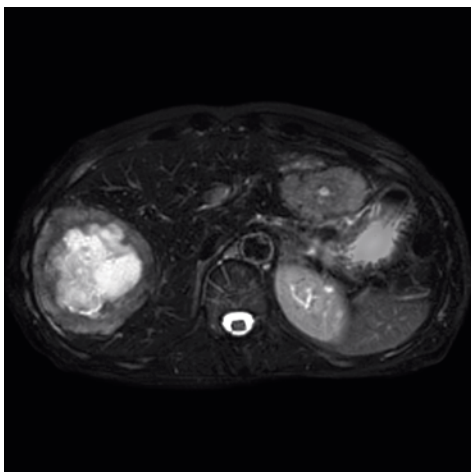
### Cardiac

Easily answer clinical questions, from cardiomyopathies to ischemic, and valvular to congenital heart diseases.



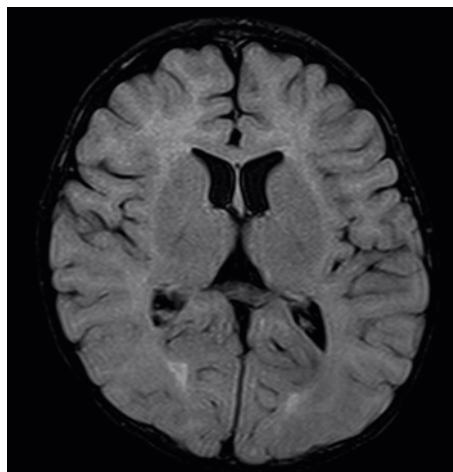
### Breast

Streamline your workflow in clinical cases, including lobular cancer, breast implant assessment, and therapy monitoring.



### Onco

Provide state-of-the-art oncology services for tumor detection and staging of prostate, liver cancers, and more.



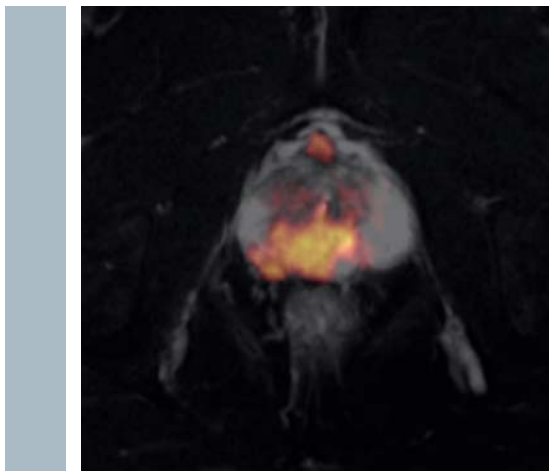
### Pediatric\*

Achieve excellent contrast and resolution with age-dependent protocols using ultra-fast and motion correction techniques.

\*The safety of imaging children under two years of age has not been established.

# Advanced Applications

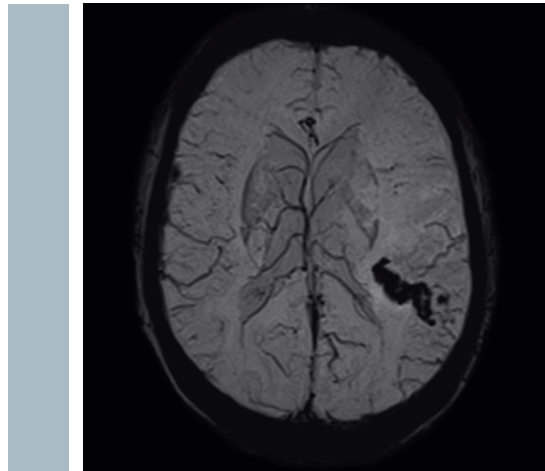
Experience cutting-edge MRI with high-end applications in all clinical fields.



## Body diffusion imaging

### **syngo REVEAL**

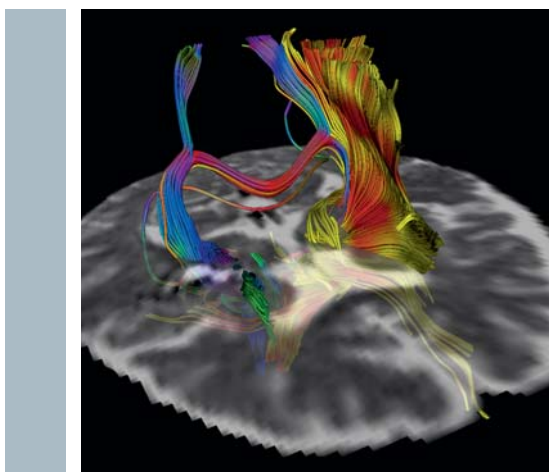
High tumor sensitivity without contrast agent. Compatible with 2D PACE motion correction.



## Detect micro-hemorrhages

### **syngo SWI**

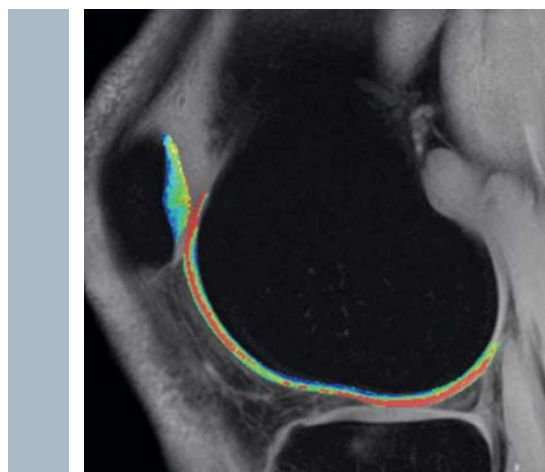
Reliably visualize micro-hemorrhages, intra-cranial bleeding, and shearing injuries with syngo SWI (Susceptibility Weighted Imaging).



## Improved pre-operative screening

### **syngo DTI**

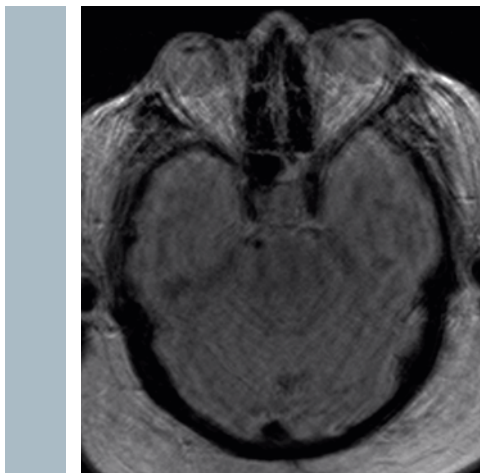
Excellent visualization of brain connectivity for improved pre-operative screening with syngo DTI (Diffusion Tensor Imaging).



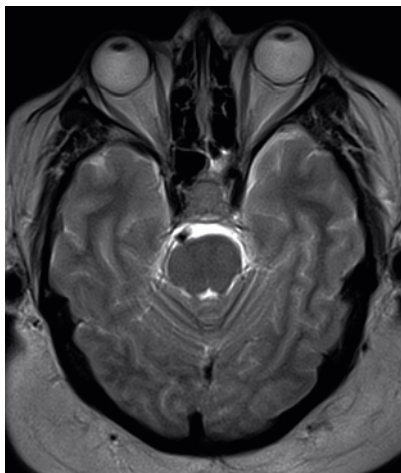
## Advanced tissue imaging

### **syngo MapIt**

Map tissue T1, T2, and T2\* in cartilage, liver, and any body region in minutes. Determine the best treatment for conditions such as osteo-arthritic pathology at an early stage.



without BLADE

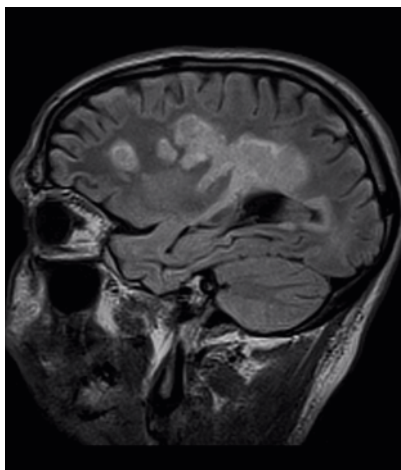
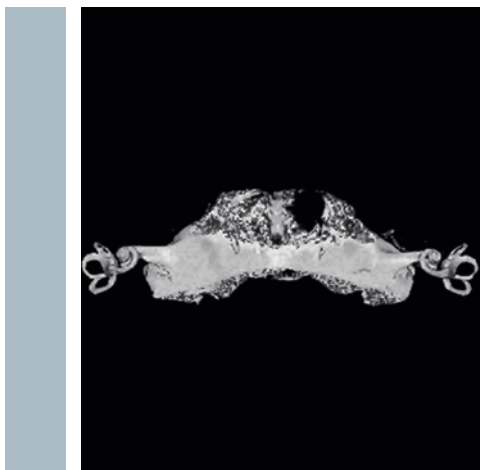


with BLADE

## Cutting edge motion correction

### *syngo* BLADE

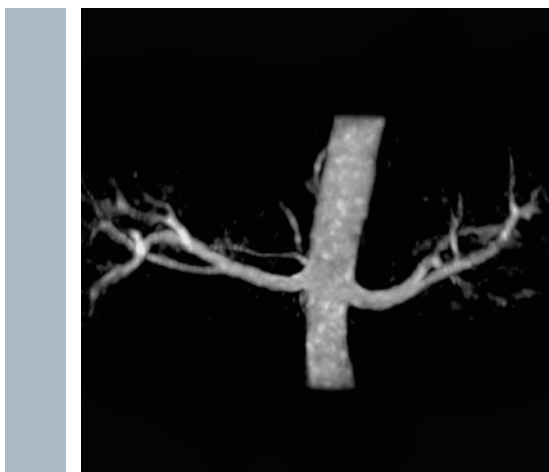
Motion-insensitive Turbo Spin Echo sequence for any organ (head, joint, spine, abdomen), for any contrast (T1, T2, Dark Fluid), and for any orientation. Compatible with parallel acquisition technique.



## 3D imaging in all contrasts

### *syngo* SPACE

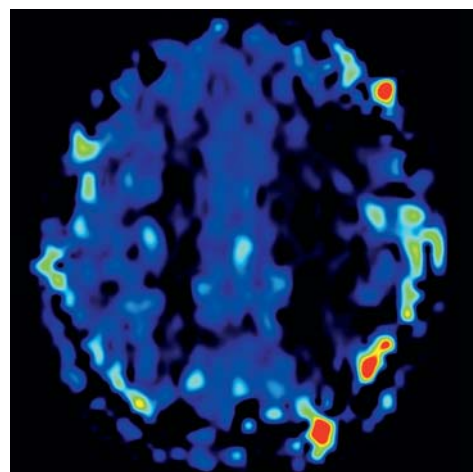
Replace multiple 2D acquisitions with only one 3D for complex head, spine, abdomen, pelvic, or orthopedic exam.



## Non-contrast enhanced angiography

### *syngo* NATIVE

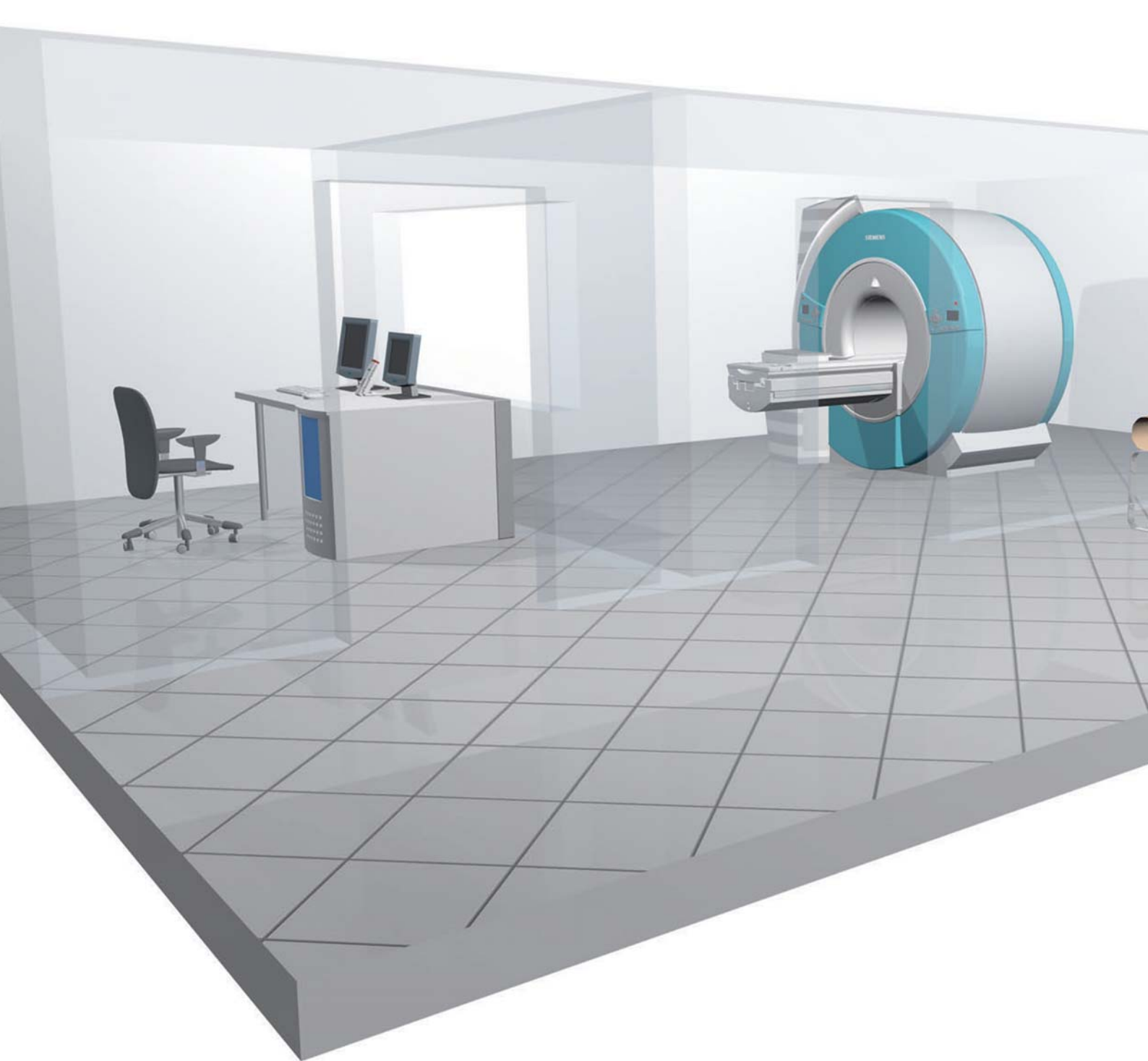
Contrast-free thoracic, abdominal, and peripheral angiography providing a set of arterial and venous results.



## Non-contrast enhanced perfusion

### *syngo* ASL

High spatial resolution perfusion imaging for evaluation of stroke, tumors, degenerative diseases, epilepsy.







- Low siting costs due to compact size. Magnet, equipment and control room fit into 27m<sup>2</sup> / 290 sq ft
- Siemens' unique Zero Helium boil-off minimizes your life-cycle costs
- Low power and cooling requirements
- Higher patient throughput with short examinations times – thanks to Tim

## Revolutionary return

With MAGNETOM Espree, Siemens has achieved the almost impossible: the combination of unprecedented patient comfort in 1.5T and minimized life-cycle costs. From the time of installation, MAGNETOM Espree saves you money. The modern, compact design permits easy and efficient installation and requires very little of your expensive floor space. And due to Zero Helium boil-off, lowest power requirements and cooling demands, you save additional money every time you use your MAGNETOM Espree.

And with Tim technology you get the most out of your investment. Tim dramatically improves workflow by speeding exams and increasing throughput. Patient set-up is faster, scan times are reduced and Inline Technology processes data automatically.

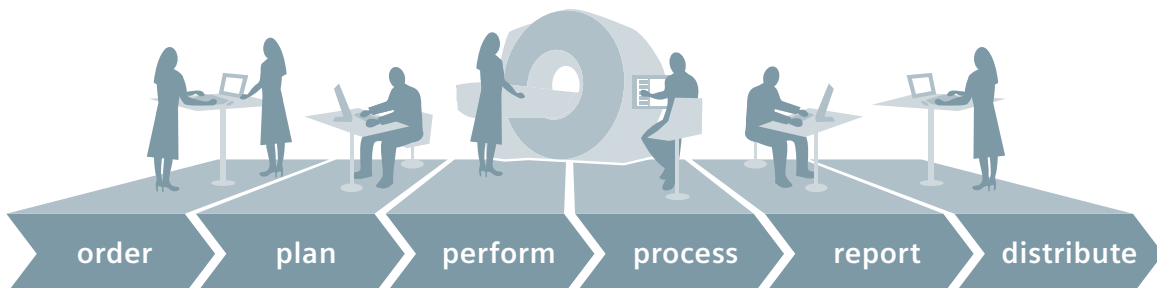


# Revolutionary workflow

With the power of Tim and the simplicity of *syngo*, MAGNETOM Espree streamlines the entire radiology process, from ordering through planning, performing exams, processing, reporting, and distribution.

## Workflow Innovations

- **syngo Inline Technology:** Allows you to perform certain processing steps as early as during image reconstruction and display them immediately after completion. This means processing instead of post-processing. Subtraction images, Maximum Intensity Projection, etc., are displayed immediately after completion of the scan.
- **syngo Phoenix and PhoenixZIP:** Enable simple exchange of MR protocols, quickly retrieving the entire protocol information in one easy drag-and-drop step. This allows reproducible follow-up examinations.
- **syngo AutoAlign solutions:** Facilitates reproducible slice positioning in the head and the spine. No manual adjustments are needed. This maximizes standardization and comparability in follow-up examinations.
- **syngo Expert-i:** Gives physicians and experts the ability to remotely access the MRI suite from virtually anywhere within the network, making it possible to address difficult clinical questions while a patient is being scanned.



MAGNETOM Espree is helping healthcare institutions around the world to provide clinical care for patients who are eager for a different kind of MRI experience.

MAGNETOM Espree can keep you a step ahead. Now and for years to come.

# The first Open-Bore MRI.

## Clinical perspective

- Unparalleled flexibility, accuracy, and speed – thanks to Tim
- Broad range of dedicated applications
- Up to 100% more SNR with surface coils
- Extended Field of View to image the whole disease

## Patient perspective

- 70-cm open bore
- Feet-first exams for nearly all MR procedures
- 60% of the examinations with head outside the gantry
- Obese patients up to 250 kg / 550 lbs
- Short scan times
- Ultra-lightweight Tim coils

## Business perspective

- Easy siting conditions with no need for a dedicated computer room
- Zero Helium boil-off minimizes life-cycle costs
- Low power requirements and cooling demands
- Fewer purchases of dedicated coils
- Higher patient throughput with shortened examinations times – thanks to Tim









**MAGNETOM Espree**  
A Tim System



#### Acknowledgement:

Hospital Bremen-Mitte, Bremen, Germany  
2nd Hospital of J.L. University, Changchun,  
P.R. China  
Beijing Hospital, Beijing, P.R. China  
Advanced Imaging, Port Charlotte, USA  
Barnes Jewish Hospital, Saint Louis, USA  
Mayo Clinic, Jacksonville, USA  
Mayo Clinic, Rochester, USA  
Northwest Memorial Hospital, Chicago, USA  
Providence Alaska Medical Center,  
Anchorage, USA  
South Jersey Radiology, Turnersville, USA  
Turville Bay MRI, Madison, USA  
United Medical Park, Waterloo, USA  
Zwanger-Pesiri Radiology, New York, USA

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*syngo* Evolve Package: In the event that upgrades require FDA approval, Siemens cannot predict whether or when the FDA will issue its approval. Therefore, if regulatory clearance is obtained and is applicable to this package, it will be made available according to the terms of this offer.

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[www.siemens.com/medical-accessories](http://www.siemens.com/medical-accessories)

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