



MAGNETOM Espree  
A Tim System



Leading.  
With  
MAGNETOM.

[www.siemens.com/espre](http://www.siemens.com/espre)

# MAGNETOM Espree

1.5T in a unique design.

Answers for life.

# CT-like openness. With



## **Leading in patient care.**

You are dedicated to providing the best care for every patient. As the world continues to grow and life expectancy rises, you are encountered with a more diverse range of challenging diagnostic questions. In your pursuit of delivering the highest quality care, you utilize advanced MRI technology designed with the patient in mind, enabling more access to quality healthcare.

## **You are an MRI leader.**

Whether you are just beginning to work with MRI or are at the forefront of research. With Siemens MAGNETOM MRI systems, you can be sure to lead. In your clinical field, your research, your business environment – to achieve our joint mission of advancing human health.

**Leading. With MAGNETOM.**



With more than 1,300 installations worldwide, MAGNETOM® Espree is, quite simply, the most successful Open Bore MRI on the market today. You'll experience revolutionary performance, increased patient satisfaction, and a wide array of applications, enabling you to do more than you ever thought possible.

# MAGNETOM.

Its 70 cm Open 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.

**MAGNETOM Espree.**  
A 1.5T MRI scanner in a unique design.



# MAGNETOM Espree. 1.5T in a unique design.

## Advanced Tim technology.

- Many high-channel coils for routine clinical applications
- Up to 205 cm Field-of-View in whole body
- Parallel imaging for fast exams

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## Trendsetting in patient comfort.

- 120 cm magnet length
- 70 cm Open Bore
- 60% head-out exams

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## New dimensions in applications.

- Proven clinical performance with > 1,300 installations
- New advanced applications with the syngo MR B19 software version
- Optimized installation requirements

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# Advanced Tim technology.

Tim advances MR imaging. With flexibility, accuracy, and speed. It seamlessly integrates up to 76 coil elements with up to 32 RF channels. It escalates image quality and acquisition speed to a whole new level. With Tim's whole-body coverage, repositioning patients for multiple exams is no longer necessary. Think more exams per day. 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**

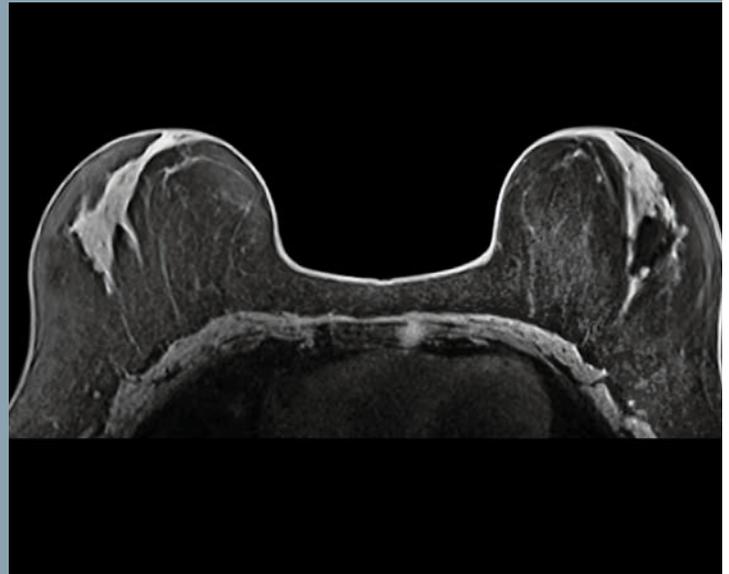
Select exams, not coils. Tim is adaptable, versatile, and easy. For faster exams and greater diagnostic confidence. Improving workflow and increasing productivity.



4-Channel Special-Purpose Coil  
3D FLASH TOF

**Accuracy**

Local and total. With extreme, pinpointed precision, Tim delivers excellent image quality – from small lesions to the whole body.



16-Channel AI Breast Coil  
Delayed VIEWS water excitation

**Speed**

Time is precious. Tim speed means faster and simpler exam set-up, and a shorter acquisition time. Now patient volume – and daily productivity – can really soar.



32-Channel Head Coil  
T2 TSE



# Trendsetting in patient comfort.

With 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 in an MRI scanner. And, the scanner 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 – 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 MAGNETOM Espree's 250 kg or 550 lbs capable patient table and Tim technology, which enables scanning in positions not possible on vertical-field open MRI scanner.

## Put your patients at ease

- 70 cm Open Bore
- 30 cm of face space
- Head-out exams
- Comfortable positioning of the joints (e.g. wrist, elbow) next to the body

## Accommodate patients with special needs and conditions

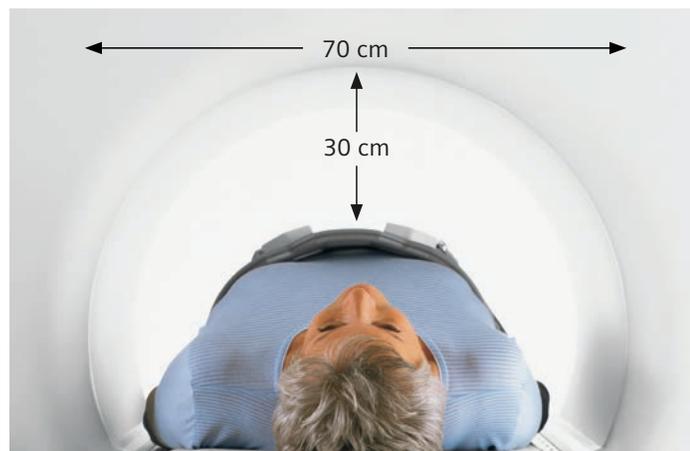
- Pain and mobility issues
- Respiratory problems
- Kyphosis

## 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 or 550 lbs)
- Claustrophobic patients
- Pediatric<sup>1</sup> and elderly patients
- ICU patients or those dependent upon medical equipment



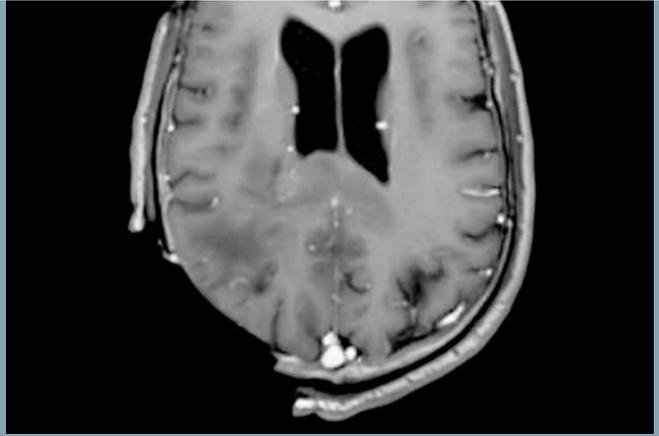


Image patients with special needs.



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



Head outside for 60%<sup>2</sup> of routine applications – with the shortest system length.



# New dimensions in 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*® MR 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 applications for each part of the body.

And Tim seamlessly scans up to 205 cm with no patient repositioning or coil changes. For true whole-body functionality.

Together with *syngo* MR B19 and high-channel coils, MAGNETOM Espree can offer you more advanced functionalities which answer the most challenging clinical demands.

T2 3D SPACE,  
4 steps, MIP



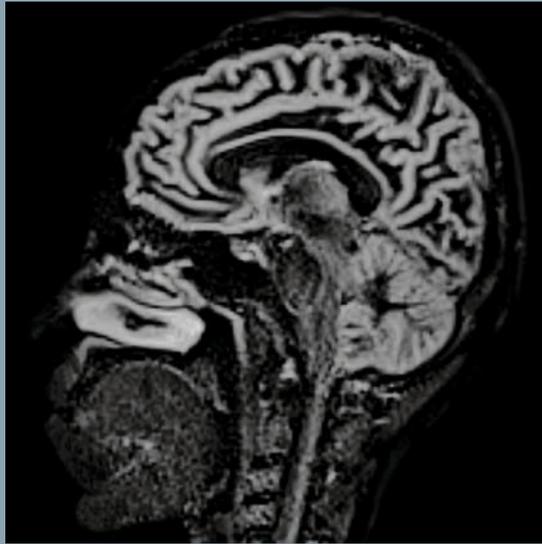
T1 FLASH opposed phase



# Standard Tim Application Suite

## Neuro

*syngo* SPACE DIR offers simultaneous suppression of white matter and CSF to increased conspicuity of gray matter (intracortical) lesions.



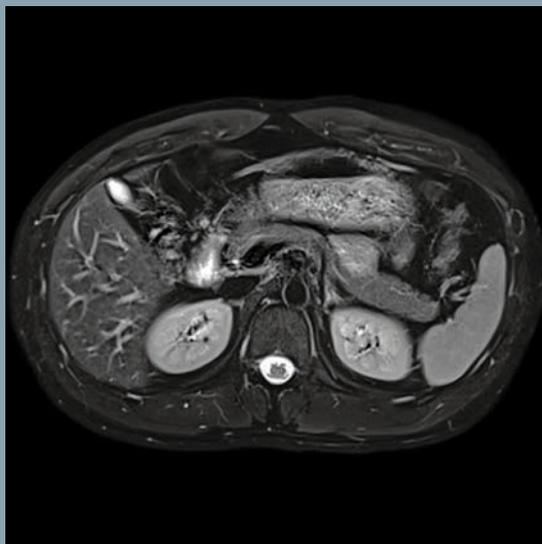
## Ortho

TSE DIXON offers outstanding high-resolution images in short scanning time with excellent fat saturation.



## Body

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



## Angio

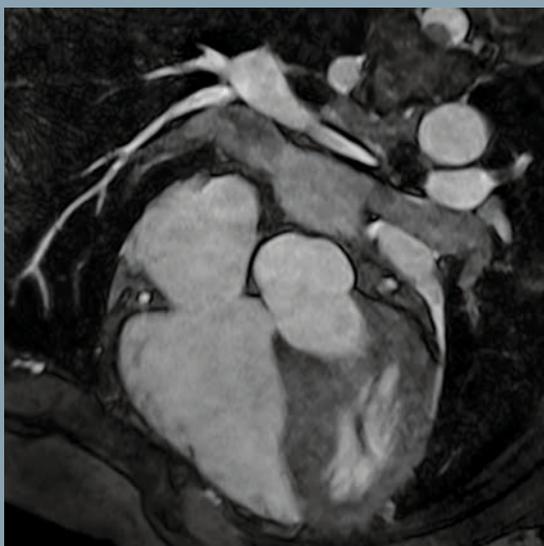
Depict vessel diseases with a wide range of contrast and non-contrast enhanced techniques.



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.

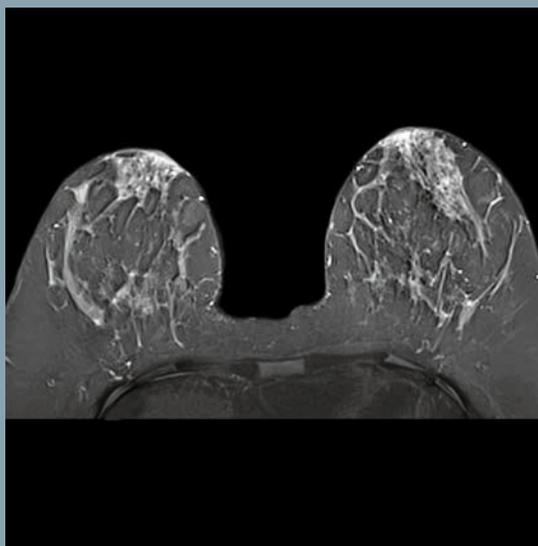
## Cardiac

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.



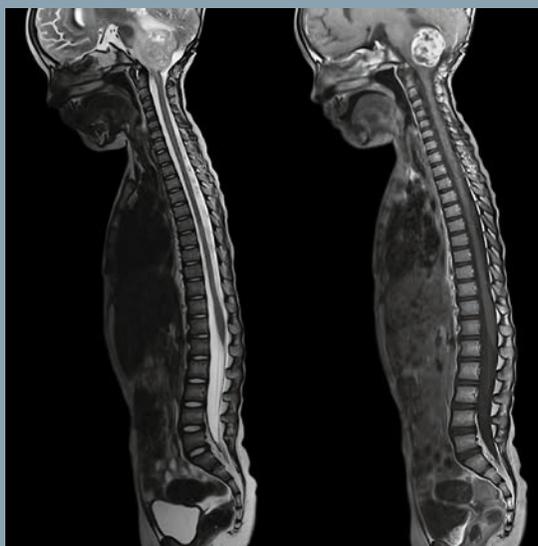
## Onco

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



## Pediatric<sup>1</sup>

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

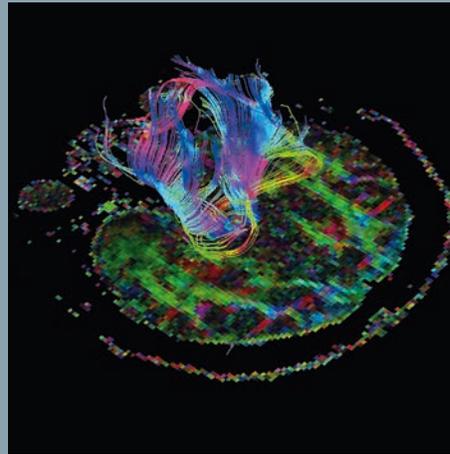


# Advanced Applications

## Improved pre-operative screening

*syngo* DTI

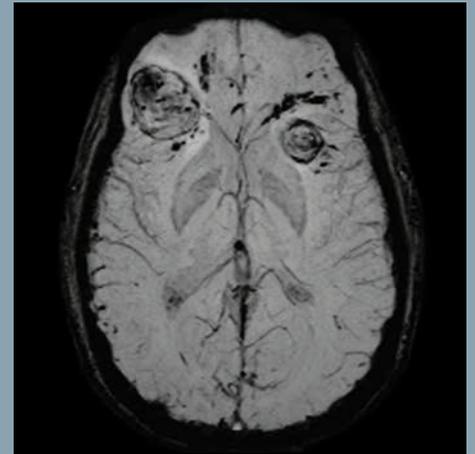
Excellent visualization of brain connectivity for improved pre-operative screening with *syngo* DTI (Diffusion Tensor Imaging).



## Detect micro-hemorrhages

*syngo* SWI

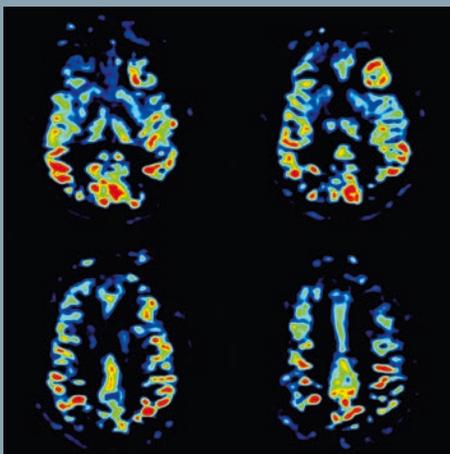
Reliably visualize micro-hemorrhages, intra-cranial bleeding, and shearing injuries with *syngo* SWI (Susceptibility-Weighted Imaging).



## Non-contrast enhanced perfusion

*syngo* ASL

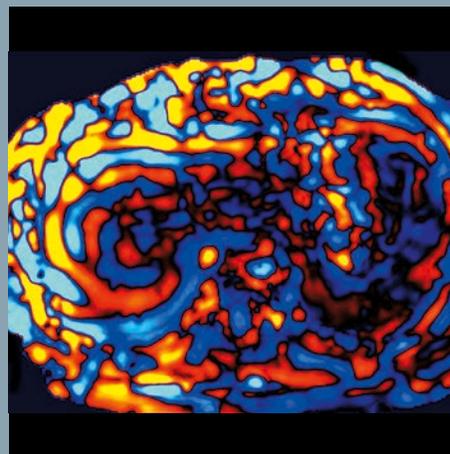
High spatial resolution perfusion imaging for evaluation of stroke, tumors, degenerative diseases, epilepsy.



## Non-invasive soft tissue evaluation

MR Elastography

New MRI-based biomarker for characterizing tissue non-invasively. Especially in the field of liver fibrosis.



## Non-contrast enhanced angiography

*syngo* NATIVE

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



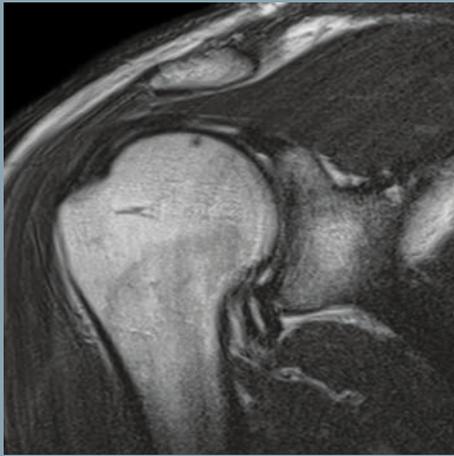
Experience cutting-edge MRI with high-end applications in all clinical fields.

### Cutting-edge motion correction

*syngo* BLADE

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

without *syngo* BLADE



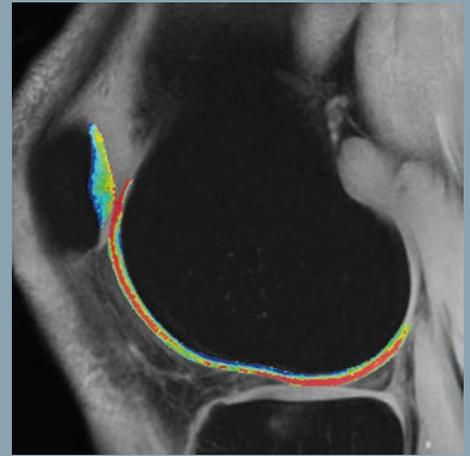
with *syngo* BLADE



### 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.



### Susceptibility artifact reduction

*syngo* WARP

2D TSE sequences combining high bandwidth protocols and VAT technique, tailored to reduce susceptibility artifacts.

without *syngo* WARP



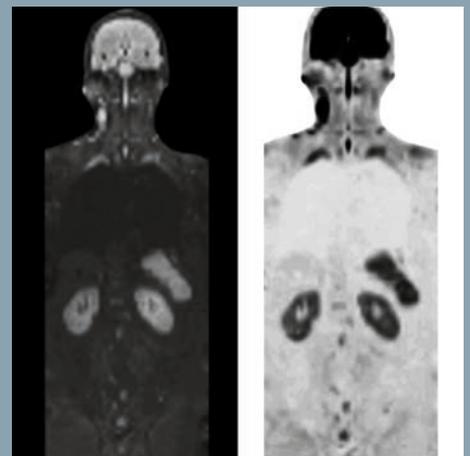
with *syngo* WARP



### Body diffusion imaging

*syngo* REVEAL

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



# 1.5T in a unique design.

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.

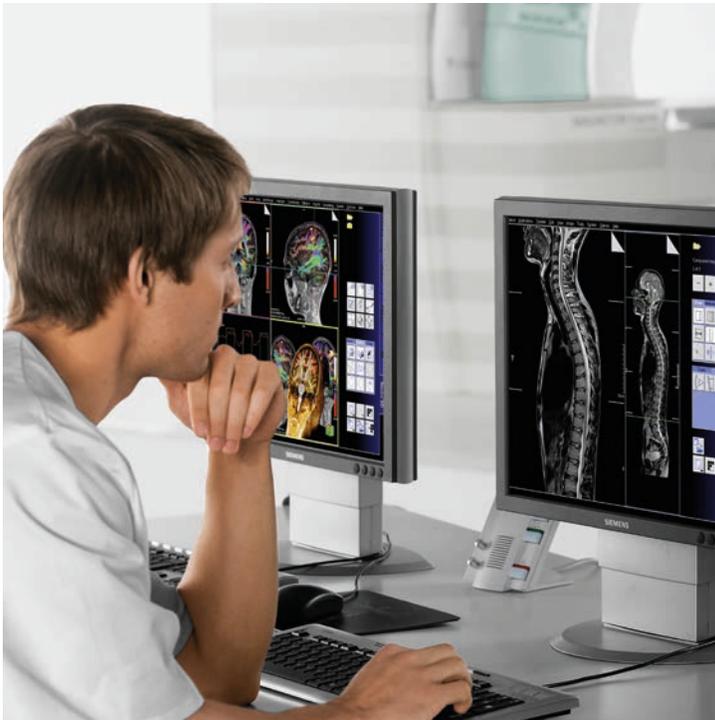
# A clinical perspective.

- Unparalleled flexibility, accuracy, and speed – thanks to Tim
- Broad range of dedicated applications
- Up to 100%<sup>2</sup> more signal-to-noise ratio with surface coils
- Extended Field-of-View to image the whole disease

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.via:*** The seamless integration of *syngo.via* further improves not only the workflow right at the scanner. But also the workflows beyond.



# A patient perspective.

- 70 cm Open Bore
- Feet-first exams for nearly all MRI procedures
- 60%<sup>2</sup> of the examinations with head outside the gantry
- Obese patients up to 250 kg or 550 lbs
- Short scan times
- Ultra-lightweight Tim coils

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 (SNR), better contrast and shorter exam times, MAGNETOM Espree enables you to see what you are missing with other lower-field scanners.

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.



# A business perspective.

- Easy siting conditions with no need for a dedicated computer room
- Low siting costs due to compact size. Magnet, equipment, and control room fit into 27 m<sup>2</sup> or 290 sq ft
- Zero Helium boil-off minimizes lifecycle costs
- Low power requirements and cooling demands
- Fewer purchases of dedicated coils
- Higher patient throughput with shortened examinations times – thanks to Tim

With MAGNETOM Espree, Siemens has achieved the almost impossible: The combination of unprecedented patient comfort in 1.5T and minimized lifecycle 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.

