

SIEMENS



Leading.
With
MAGNETOM.

www.siemens.com/MAGNETOM-ESSENZA

MAGNETOM ESSENZA

Established 1.5T performance. With Tim+Dot.

Answers for life.

MAGNETOM ESSENZA

A Tim+Dot System

Up to 60 cases p With



Leading in efficiency

You are aiming for more accurate diagnoses, to accommodate more patients in less time. Your investments need to pay off quickly and operating costs need to be kept down. To help overcome these challenges and raise quality and productivity in healthcare, you can benefit from the most efficient and user-friendly MRI solutions available, without making any compromise in delivering premium patient care.

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.

er day.¹ MAGNETOM.



www.siemens.com/
MAGNETOM-ESSENZA

“ Because there's no need to reposition the coils, we can achieve 50-60 patients every day.² ”

Dr. Li Song Bai
Director of MRI department
1st Hospital of CMU
Shenyang, China



er day.¹ MAGNETOM.

Built with the experience of more than **1,000 customers** in the field, MAGNETOM ESSENZA, now with Tim+Dot³, will enable you to be even more productive, more versatile, and more confident in your daily MRI practice.

How?

- By **bringing Dot** (Day optimizing throughput) **together with Tim** (Total Imaging Matrix), boosting image quality and consistency while helping take the complexity out of MRI.
- By being equipped with **the latest application platform**, providing more standard and advanced applications than ever before.
- Through **reassuring investment and operating costs**, defining a faster return on investment and sustainable value.

MAGNETOM ESSENZA.

Established 1.5T performance. With Tim+Dot.

SIEMENS



MAGNETOM ESSENZA.

Established 1.5T performance.
With Tim+Dot.

Designed for steady performance, MAGNETOM ESSENZA fully answers your needs in daily MRI practice – with Dot engines to increase your productivity and latest applications to broaden your clinical scope.





More productivity. With Tim+Dot.

- Excellent workflow with Tim [25x8] and the unique integrated IsoCenter Matrix
- Consistently high quality exams – personalized, guided, automated – with Dot
- Powerful imaging performance with an outstanding coil portfolio

More applications. From head to toe.

- Comprehensive Tim Application Suite for routine and advanced 2D/3D imaging
- Advanced applications like CAIPIRINHA, *syngo* BLADE, Inline Diffusion – now standard
- Beyond standard – one step ahead for more advanced applications like *syngo* RESOLVE

More confidence. Through sustainable value.

- Access to new innovations with our latest *syngo* software platform
- Ease of use with Dot - making complex exams routine
- Lowest operation cost in class¹ with state-of-the-art zero Helium boil-off technology
- Reassuringly low TCO (Total Cost of Ownership) and a faster break-even
- Excellent performance and reliability – confirmed by more than 1,000 installed systems

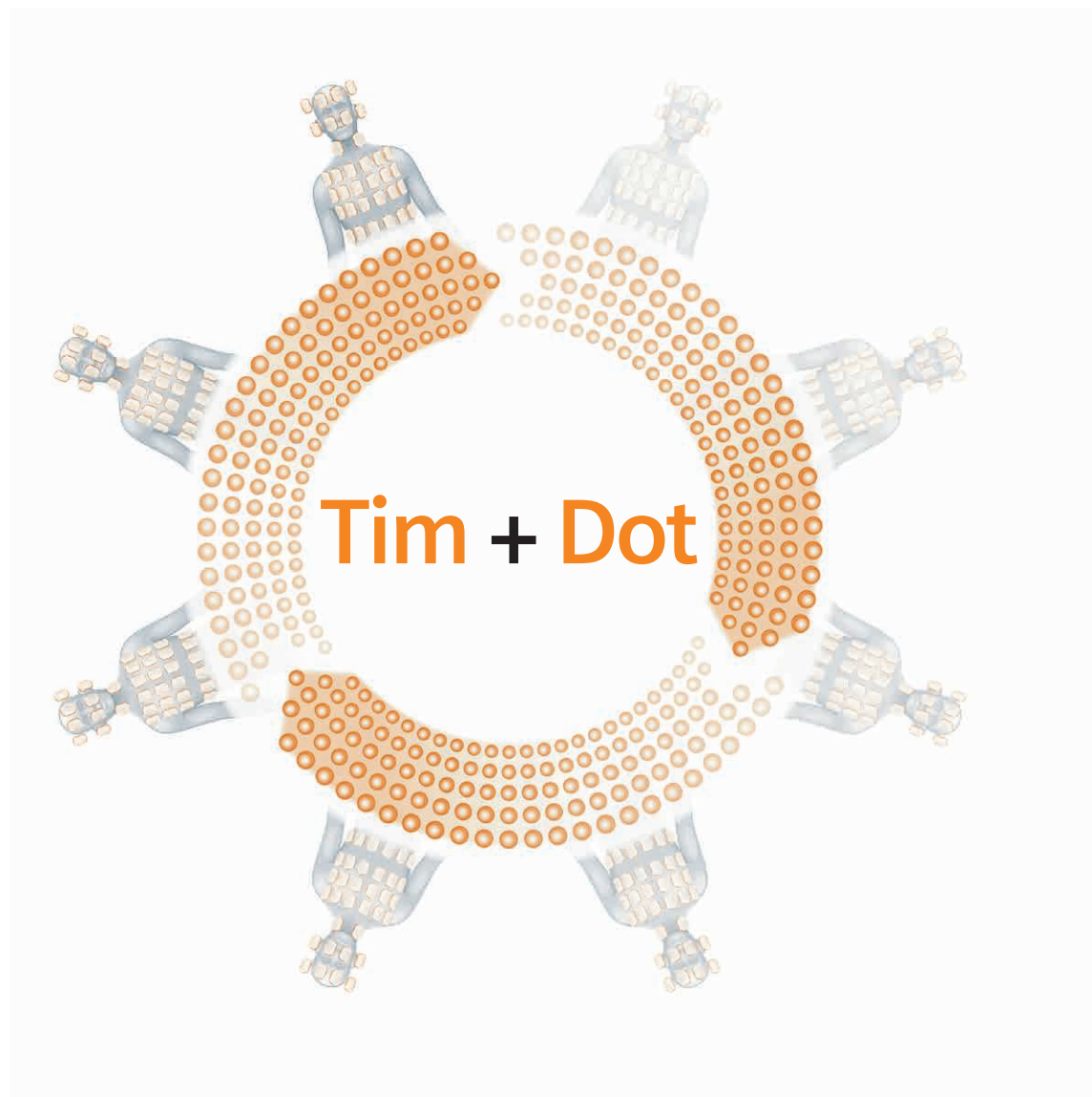
More productivity. With Tim+Dot.

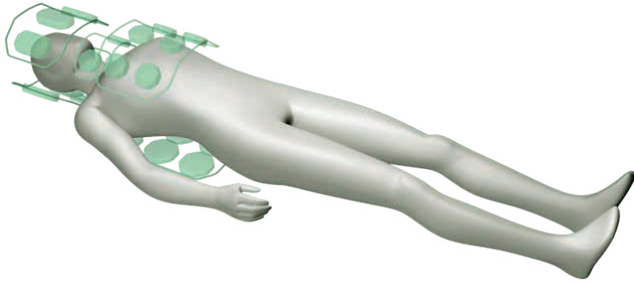
Tim+Dot are the direct response to today's demanding world of healthcare economics.

Tim is Siemens' integrated coil technology unlocks imaging power like never before.

Dot engines help take the complexity out of MRI, at the same time enable consistency and reproducibility.

Together, they redefine productivity – with an increase of up to 50%.





Tim sets the standard in MRI.

Tim integrated coil technology changed MRI forever. With excellent image quality and fast acquisition speed, the proven technology is now in over 8,000 installations. Tim's extended coverage means no repositioning for multiples exams and more exams per day.

Your benefits:

- Exceptional image quality
- Faster acquisition, resulting in shorter exam time
- Higher SNR

Flexibility

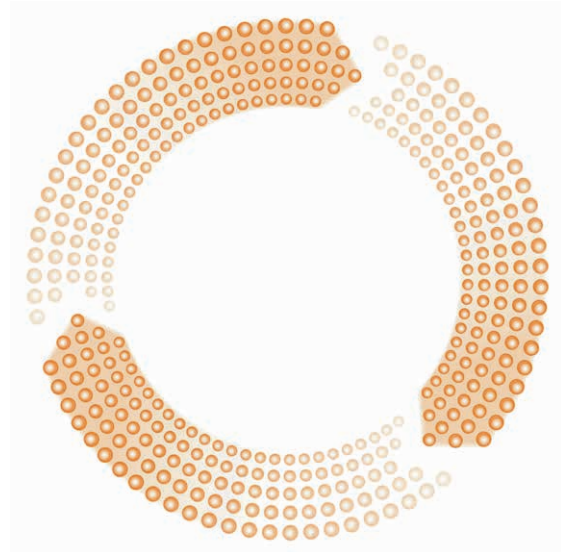
- Select exams, not coils
- 8 RF channels for up to 25 matrix coil elements
- Head-to-toe imaging without patient repositioning

Accuracy

- Local and total imaging from head to toe, while maintaining a high SNR
- Excellent image quality with high coil density
- Seamless scan range of up to 140 cm with excellent image quality

Speed

- Utilize parallel imaging (iPAT) in all directions
- High acquisition speed, high resolution
- Shorter examination times allow increased throughput



Dot. The next movement in MRI.

Dot is a new way of scanning in MRI. We think it's a better way. Dot scanning uses a suite of customizable engines – allowing the user to personalize exams according to patient needs, build in step-by-step user guidance, and automate MRI exams – either “out of the box” or based on the institution’s standards.

Your benefits:

- Increased consistency and reproducibility
- Greater ease of use
- Higher productivity

Personalized

- Uniquely tailored, optimized exam strategies
- Adapt scanning to the patient condition or clinical question
- Customize Dot strategies to your standards of care

Guided

- Real-time on-board guidance with images and text through even complicated exams
- Adapt scanning to your protocols for increased standardization with integrated decision points
- Add your own instructions including image examples for consistent positioning and scanning

Automated

- Consistent and reproducible scanning with features like AutoAlign, AutoBolus Detection
- Intelligent workflows customizable to your standards enable effortless set-up
- Optimized timing of scanning and breathing

More productivity. With Tim+Dot.

Tim technology has made fast, flexible, and accurate scans the standard in MRI. MAGNETOM ESSENZA provides access to this market-leading technology, bringing excellent productivity to your daily clinical work.

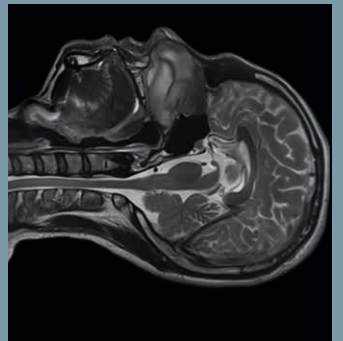
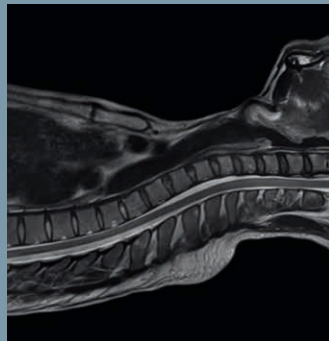
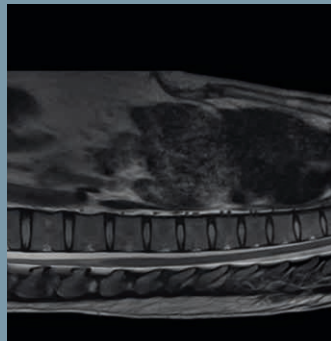
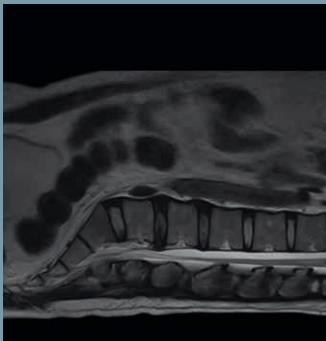
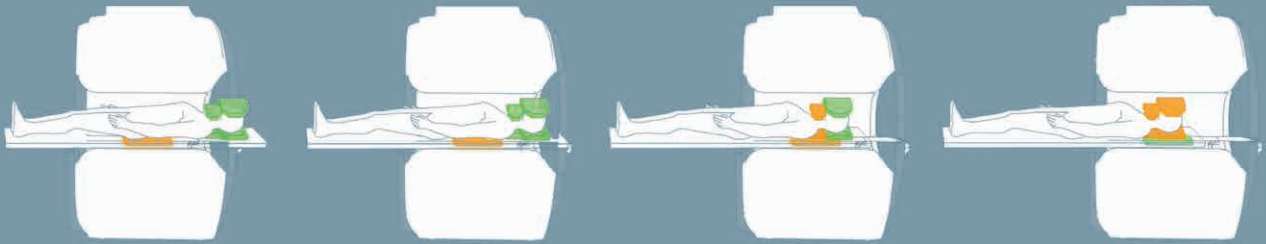
Excellent image quality and workflow with Tim [25x8]

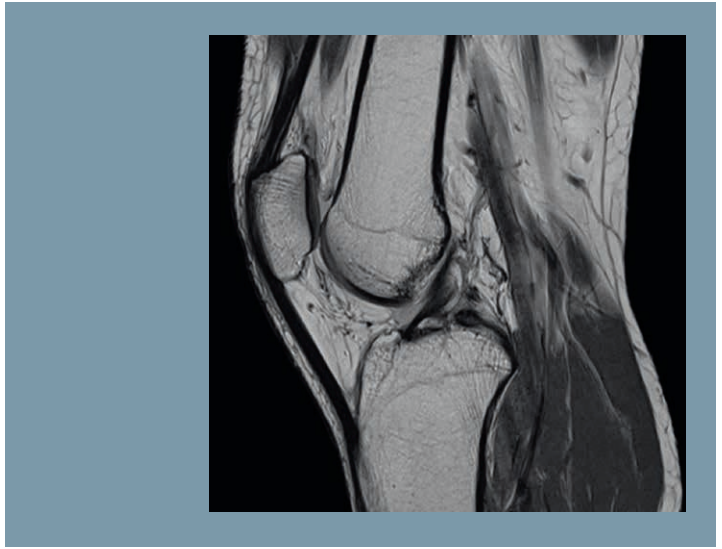
- Flexible combination of up to 4 Matrix coils
- Up to 25 matrix coil elements seamlessly combined
- Excellent coverage allows exams like whole CNS, whole Abdomen or peripheral MRA without repositioning

Great patient comfort on a total scan range of up to 140cm

- Unique integrated IsoCenter Matrix Coil always ready to scan
- Short system design with 147cm length, from cover to cover
- Comfortable patient table for patient weight of up to 200kg /440 lbs and with lowest height of 55cm

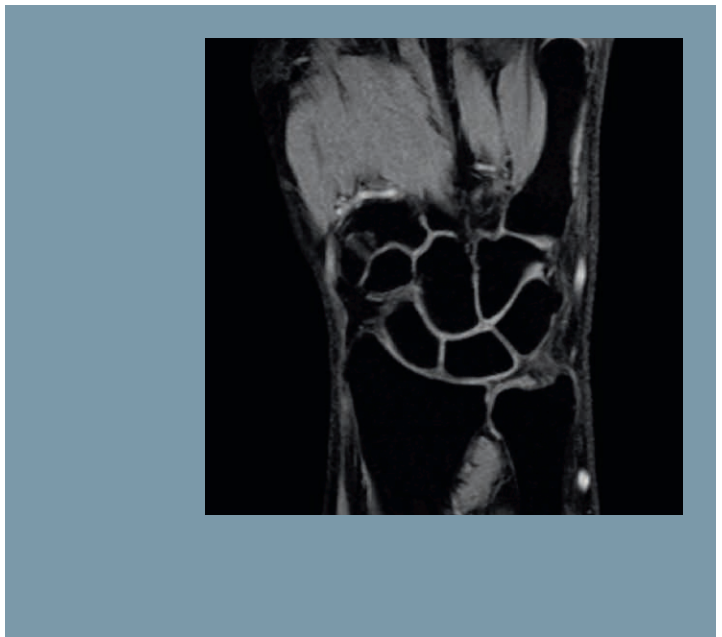


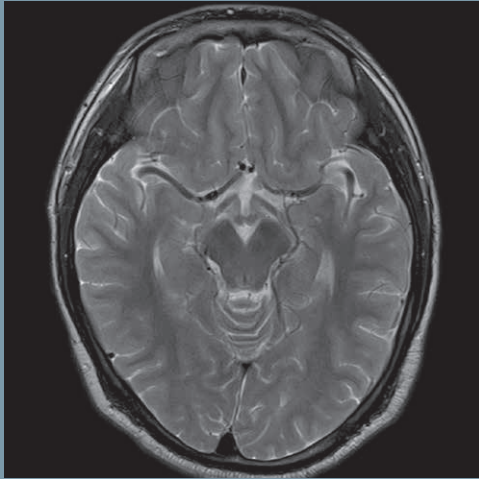




Excellent flexibility and highly versatile use with the Flex coil

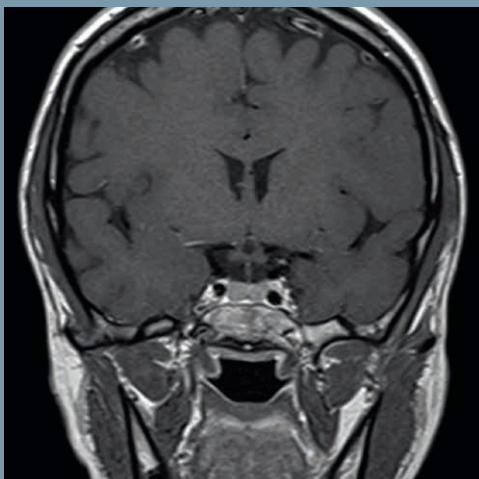
- Two different sizes that fit different body regions like wrist, elbow, shoulder, hip, knee and ankle
- Wrap-around, flexible coil design
- 4-channel design for high SNR and great iPAT imaging performance





Outstanding image quality and speed with the 10-element Head/Neck coil

- 10-element design for excellent SNR and iPAT in any direction
- Large aperture opening and detachable double mirror
- Flexible usability, e.g. with lower part only for claustrophobic patients
- Highly combinable with additional coils like the Body Matrix or IsoCenter Matrix Coil



More productivity. With Tim+Dot.

Whether you work with the system pre-sets, or configure Dot to your institution's standards, the Dot engines multiply the power of Tim. The results: greater image consistency and diagnostic confidence, greater ease of use, and a day that's more productive than ever before.

Brain Dot Engine

The Brain Dot Engine makes brain exams easier, more reproducible, and more efficient. Personalized exam strategies help to adapt the examination to patient condition or clinical questions. Also when conditions change during the examination.





Cardiac Dot Engine

Up to 50% increase in patient throughput¹

- Consistency in slice positioning for reliable image quality over multiple exams
- Ease-of-use, helping bring cardiac MRI into your clinical routine

www.siemens.com/Cardiac-Dot-Engine



Angio Dot Engine

Automated calculation of contrast agent application

- Interactive contrast timing approach eliminates need for cumbersome calculations
- Increased timing accuracy and image consistency

www.siemens.com/Angio-Dot-Engine

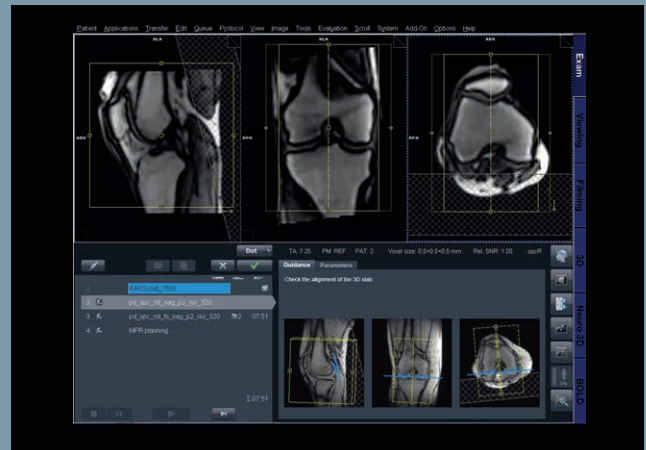


Abdomen Dot Engine

Up to 28% better timing accuracy¹

- Improved timing accuracy for more reproducible results
- Consistent image quality for even complex abdomen examinations

www.siemens.com/Abdomen-Dot-Engine



Knee Dot Engine

Knee examination tailored to the patient

- More consistent image quality
- Speed and ease-of-use for 3D workflows
- syngo WARP for reduction of susceptibility artifacts, from MR conditional metal implants

www.siemens.com/Knee-Dot-Engine

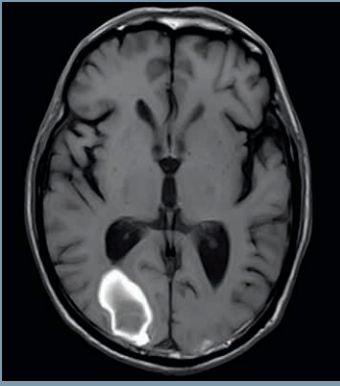
More applications. From head to toe.

MAGNETOM ESSENZA delivers outstanding image quality from head to toe. The Tim Application Suite comprises the Neuro, Ortho, Body, Angio, Cardiac, Breast, Oncology, and Pediatric⁵ suite to support the complete range of clinical applications.



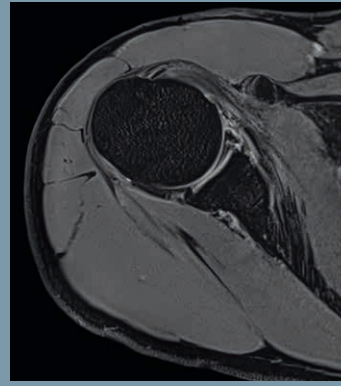
“
The acquisition of
MAGNETOM ESSENZA
was a great choice,
because it surpassed
all our expectations,
attending the hospital
diversified needs.²”

Dr. Cristiano Rezio MD
Radiologist,
Administrative Director
Clínica De Diagnostico
Por Imagem Avançado
Goiânia – GO, Brazil



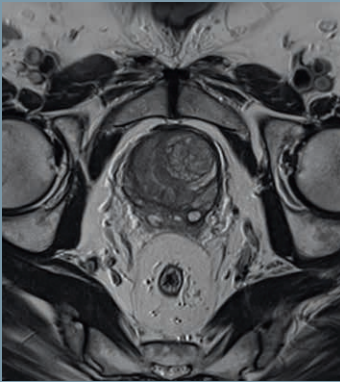
Neuro

Excellent performance and pristine image quality for standard and advanced applications, in 2D or 3D, e.g. sub-mm isotropic resolution with *syngo* SPACE.



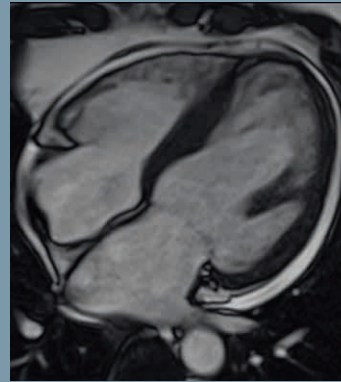
Ortho

Examine ligament tears to cartilage degeneration with high-resolution imaging and a wide range of dedicated coils.



Onco

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



Cardiac

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



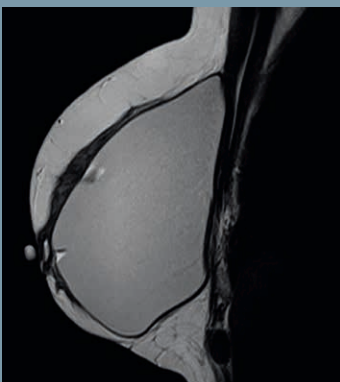
Angio

Easily depict vessel diseases with contrast and non-contrast enhanced techniques.



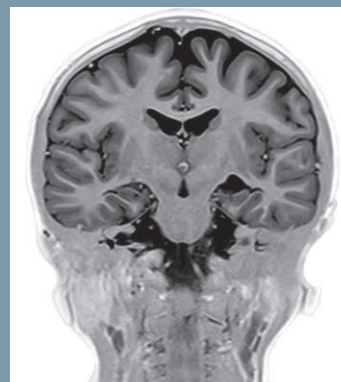
Body

Perform high-resolution free-breathing abdominal studies like MRCP or fast single-breathhold 3D abdominal scanning with CAIPIRINHA.



Breast

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

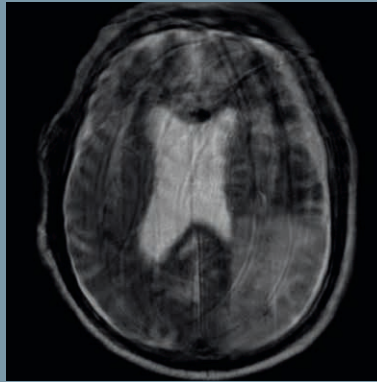


Pediatric⁵

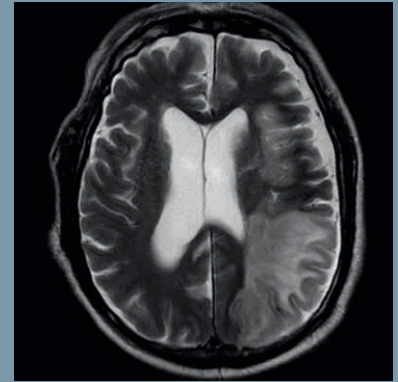
Achieve excellent contrast and resolution with agedependent protocols, using ultra-fast and motion correction techniques.

syngo BLADE

Robust, motion-insensitive imaging for excellent imaging results even for non-cooperative patients, can be used in head, shoulder, abdomen, and other body regions.



T2 TSE with severe motion artifacts of an acute stroke patient

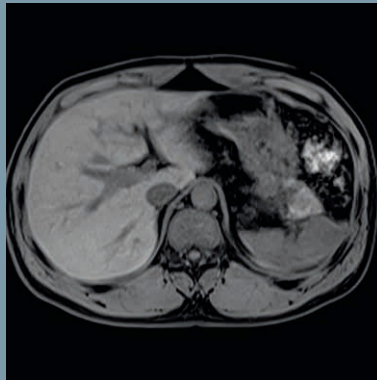


T2 TSE BLADE of the same patient

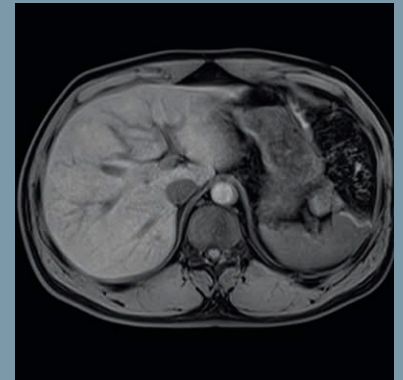
The Tim application suite provides you with advanced, cutting-edge applications like *syngo* BLADE, CAIPIRINHA, Inline Diffusion and advanced 3D imaging sequences like *syngo* SPACE and 3D CISS & DESS.

CAIPIRINHA

The powerful next generation iPAT application for up to 50 % faster 3D imaging.¹



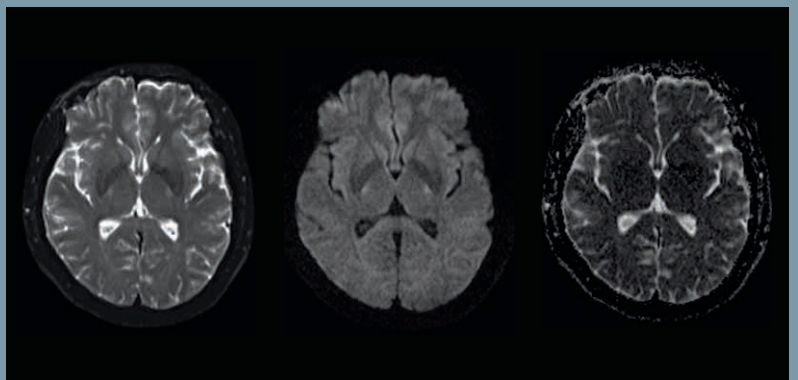
Conventional 3D VIBE DIXON with GRAPPA, acquired in a 20s breathhold



3D VIBE DIXON with CAIPIRINHA: Only 16s breathhold and higher resolution at the same time

Inline Diffusion

Automatic real-time calculation of trace-weighted images and ADC maps with Inline Technology for stroke imaging and tumor differentiation in head and body applications.



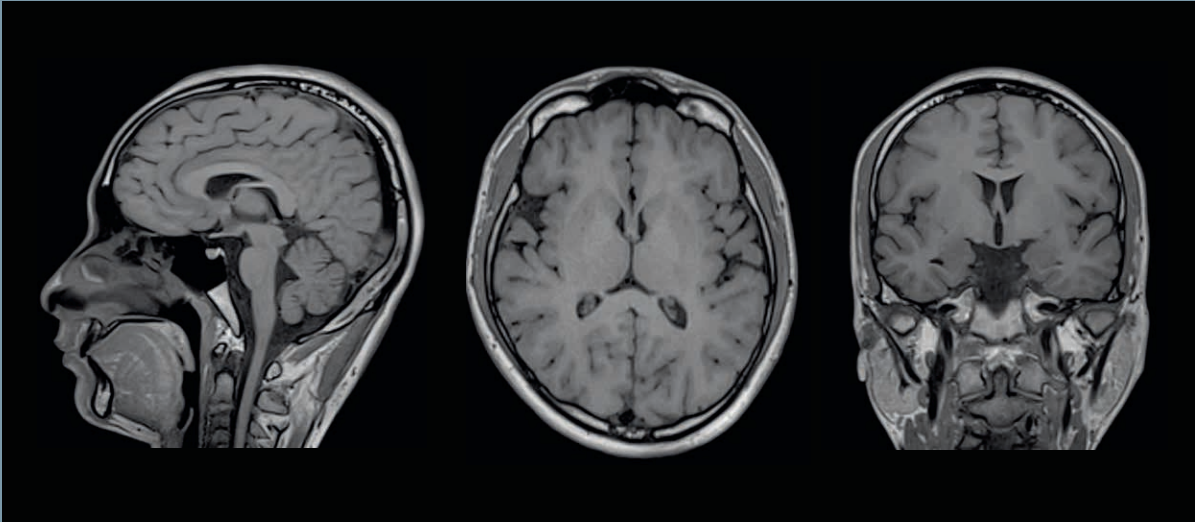
Diffusion b0

Diffusion b1000

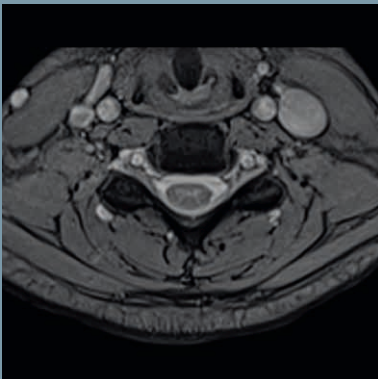
Automatically calculated ADC map

syngo SPACE, Medic, VIBE

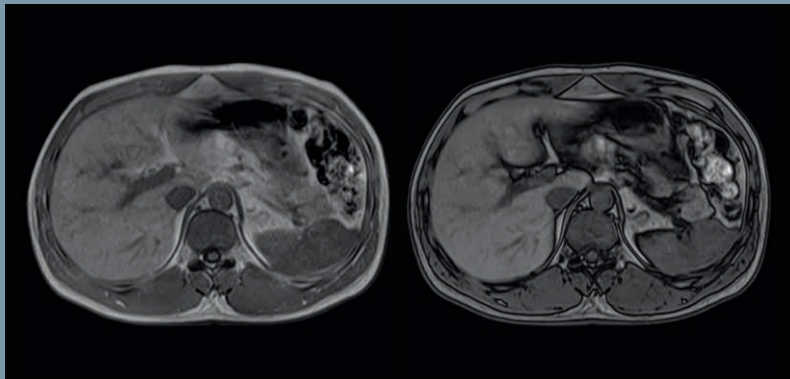
High-end 3D imaging sequences for various contrasts with high through-plane resolution, up to isotropic imaging, provide you the full flexibility to generate any arbitrary angulation after the scan – conveniently for you and your patient.



3D T1 SPACE, sagittal acquisition with 1.0 mm isotropic resolution, shown with reformatting examples in axial, and coronal orientation



3D T2 MEDIC of C-Spine



3D T1 VIBE in- & opposed-phase, 72 slices acquired in 22s

3D DESS

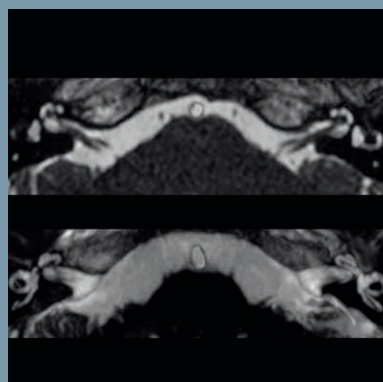
T2/T1- weighted, high resolution cartilage imaging.



3D DESS, knee

3D CISS

Excellent visualization of fine structures such as cranial nerve, high resolution imaging of inner ear and spine.



3D CISS, Inner ear, cutout

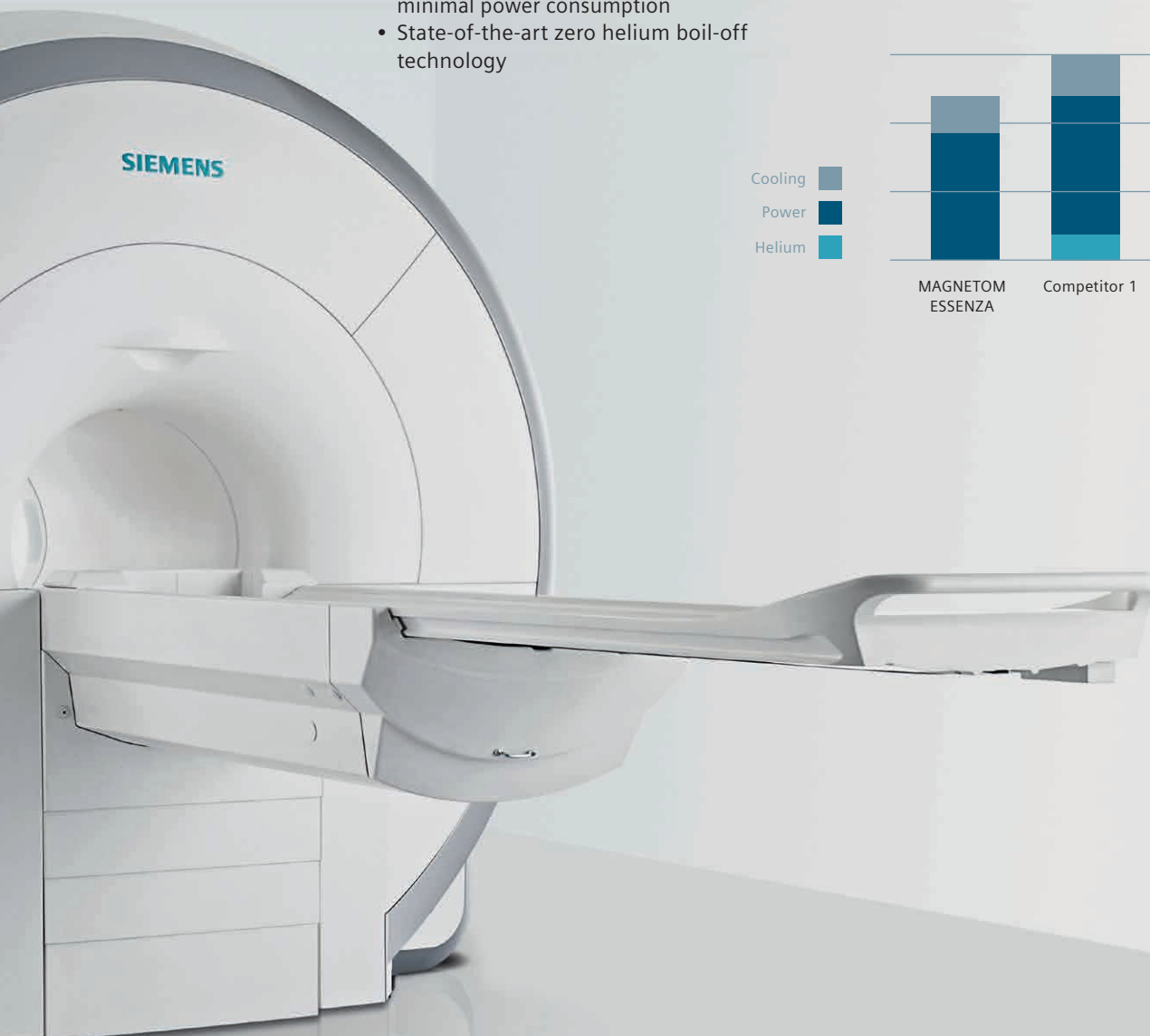
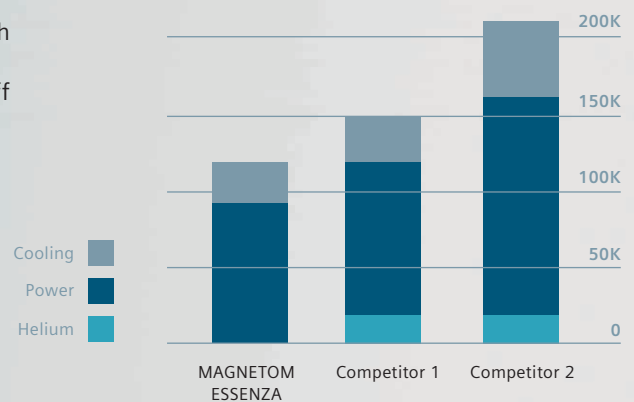
More confidence. Through sustainable value.

With MAGNETOM ESSENZA value for money meets sustainability. Along the complete lifecycle you benefit from the latest technology and system design. Be more efficient and productive than ever before, at a highly attractive total cost of ownership (TCO).

Outstanding TCO

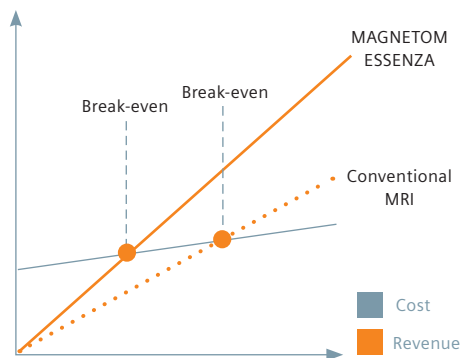
- Low installation requirements with short system design
- Lowest operating costs in class with minimal power consumption
- State-of-the-art zero helium boil-off technology

Operating cost comparison with latest competitive systems over a 7-year lifetime period (€)¹



The new MAGNETOM ESSENZA stands for increased efficiency from day one. It enables you to keep costs low while increasing your number of patients. A sure combination for a faster break-even.

Break-even comparison



Optimized workflow

- Increase your standard workflow setup with Tim and GRAPPA: Comprehensive knee evaluation in less than 10 minutes¹
- Optimized workflow and great consistency brings dramatic throughput: e.g., up to 20% throughput increased¹ with Brain Dot Engine

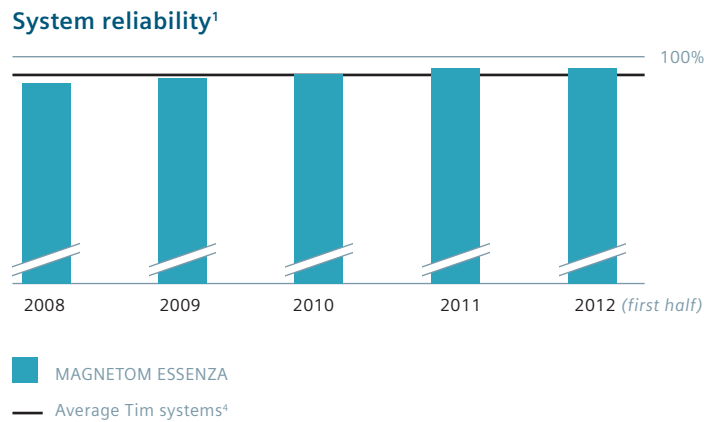
“ The MAGNETOM ESSENZA MR system allows us doing high quality examinations while keeping investment and operating costs under control. ... Today, we have a very good productivity.² ”

Mr. Geoffrey Gatebled
Chief technician
Centre d'Imagerie Médicale
de Franconville
Franconville, France



More confidence. Through sustainable value.

With MAGNETOM ESSENZA, you will get excellent system performance – and an uninterrupted uptime¹. More than 1,000 customers in over 80 countries already rely on MAGNETOM ESSENZA's robust MRI performance. Every day, whenever they need to.



MAGNETOM Skyra



MAGNETOM Aera



MAGNETOM Spectra



Benefit from the joint software platform

MAGNETOM ESSENZA is ready for the future. Based on our latest software platform, it helps you keep the pace with latest MRI trends and developments.

Innovative imaging techniques like CAIPIRINHA are already available today – while MAGNETOM ESSENZA’s latest software platform grants access to even more advanced applications of tomorrow.

With MAGNETOM ESSENZA, you get a highly innovative system that will continue its innovation path. And with *syngo* Evolve, you are automatically part of it.

“*ESSENZA is a true “value for money” system combining both strengths of excellence in imaging and viability for investors.*”²

*Dr. B. Kannan
Director
Aravind Krishna Hospital
Sattur, Virudhunagar District
Tamilnadu, India*



with our latest products.

Customer Care

Customer Services

Siemens' solutions help you maintain uptime, improve performance, and optimize workflow for sustainable healthcare, while ensuring that your staff is trained to deliver the highest quality results possible. You can depend on us as a trusted partner.

MORE Clinical Expertise

Enhanced expertise, greater efficiency, and high productivity thanks to education, consulting services, and personalized training. Our dedicated application specialists will help you to effectively use your systems to ensure a high level of satisfaction for your business and your patients.

www.siemens.com/uptime-services

syngo Evolve MR

Up-to-date, powerful hardware and software are key factors for enhancing the performance and diagnostic quality of your systems. syngo Evolve helps you to keep pace with rapidly developing technological advances throughout the complete life cycle of your system.

www.siemens.com/syngo-evolve

Customized Service Agreements

Different needs call for individual service agreements. That is why we have structured our technical services in modules and additional options. By selecting the best combination of modules and options, we develop an individualized Performance Plan that ensures an optimal service solution for your situation.

www.siemens.com/performance-plans

Redefine your MRI system

Redefine your MRI system with options and upgrades. Keep pace with innovations and keep your system state of the art during its entire product lifecycle. Get your personalized recommendation and discover new coils and clinical software applications. Try them out with a software trial license and experience how you can redefine your system to meet your needs.

www.siemens.com/redefine



MAGNETOM World

Our online platform with clinical information, case reports, protocols, application tips, and talks by international experts is growing every day. Stay informed at:






www.siemens.com/magnetom-world



MAGNETOM_World

MAGNETOM ESSENZA.

Established 1.5T performance. With Tim+Dot.

-  **Higher patient comfort**
due to light-weight coils, ultra-short magnet design, and fast exams
-  **Optimized workflow**
and increased consistency – with Dot
-  **Greater clinical scope**
with head-to-to applications
-  **Diagnostic confidence**
through remarkable, consistent image quality
-  **Excellent life-cycle value from day one**
through low installation and operating costs



Leading.
With MAGNETOM.



On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and are subject to change without prior notice. Some/All of the features and products described herein may not be available in the United States.

All devices listed herein may not be licensed according to Canadian Medical Devices Regulations. The information in this document contains general technical descriptions of specifications and options as well as standard and

optional features which do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications, and options described herein without prior notice. Please contact your local Siemens sales representative for the most current information.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced

Please find fitting accessories:
www.siemens.com/medical-accessories

Not for distribution in the USA.

¹ Data on file; results may vary.

² The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

³ Some of the features mentioned in this material are still under development and not yet commercially available for MAGNETOM ESSENZA. Their future availability cannot be ensured.

⁴ Systems covered by a Siemens Service Contract Performance Plan TOP.

⁵ MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician has to decide about the benefit of the MRI examination in comparison to other imaging procedures.

Images courtesy of:

Battlefield Imaging, Ringgold, USA
Bupyeong Himchan Hospital, Incheon, Republic Korea
CDPI, Rio De Janeiro, Brazil (IG Brochure)
CEDIB, Barretos, Brazil
Hopital Prive de la Seine St. Denis, Le Blanc Mesnil, France
Hospital La Moraleja, Madrid, Spain
Hospital Santa Virginia, Sao Paulo, Brazil
People's Hospital, Shenzhen, P. R. China
PRO-VITA, Sofia, Bulgaria
Sanatorio Allende, Cordoba, Argentina
Shanghai City Children's Hospital, Shanghai, P.R. China
Tateyama Hospital, Tateyama, Japan

Global Business Unit

Siemens AG
Healthcare Sector
Magnetic Resonance
Henkestr. 127
91052 Erlangen
Germany
Phone: +49 9131 84-0

Local Contact Information

In the USA

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway
Malvern, PA 19355
Phone: +1 888-826-9702
Phone: +1 610-448-4500
Fax: +1 610-448-2254

In China

Siemens Medical Park, Shanghai
278, Zhouzhu Road
SIMZ, Nanhui District
Shanghai, 201318, P.R. China
Phone: +86-21-38895000
Fax: +86-10-28895001

In Japan

Siemens-Asahi
Medical Technologies Ltd.
Takanawa Park Tower 14F
20-14, Higashi-Gotanda
3-chome
Shinagawa-ku, Tokyo 141-8644
Phone: +81 3 5423 8411

In Asia

Siemens Pte Ltd
Healthcare Sector
Regional Headquarters
The Siemens Center
60 MacPherson Road,
Singapore 348615
Phone: +65 6490-6000
Fax: +65 6490-6001

Global Siemens Headquarters

Siemens AG
Wittelsbacherplatz 2
80333 Muenchen
Germany

Global Siemens Healthcare Headquarters

Siemens AG
Healthcare Sector
Henkestrasse 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
www.siemens.com/healthcare

Legal Manufacturer

Siemens Shenzhen
Magnetic Resonance Ltd.
(SSMR) Siemens MRI Center,
Gaoxin C. Ave. 2nd,
Hi-Tech Industrial Park
Shenzhen 518057,
P.R. China
Phone: +86 755-26525421
Fax: +86 755-26733604