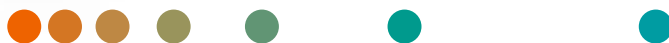


# MAGNETOM Altea

# Confidence to deliver

[siemens-healthineers.com/altea](https://siemens-healthineers.com/altea)



# MAGNETOM Altea gives you full confidence to deliver

MAGNETOM Altea is the scanner designed to give you full confidence to deliver the productivity, reproducibility, and patient satisfaction that you demand.

Built on our most powerful 1.5T platform, MAGNETOM Altea adapts to your needs so that you can rise to the most demanding challenges.

It puts cutting-edge AI at your fingertips to accelerate and enhance your performance.

Powered by myExam Companion and our unique BioMatrix technology, the system enables you to perform with confidence and consistency through each step of the MRI workflow.

With a clear focus on financial sustainability, MAGNETOM Altea also gives you full confidence that your MR asset will deliver the expected returns on investment. Throughout the entire system life cycle, Siemens Healthineers provides you with tailored products and services that guarantee future security.



# Transform your care delivery

At the core of our revolutionary MRI system lies a magnetic design unparalleled in strength and efficiency, setting new benchmarks in diagnostic imaging.

MAGNETOM Altea is designed to fundamentally transform care delivery in your clinical key areas and provide financial sustainability.

**Ultra-high performance 1.5T magnet**  
up to 50 cm<sup>3</sup> FOV<sup>1</sup>  
Excellent homogeneity

**Strong gradient's system<sup>2</sup>**  
XJ gradients 57 mT/m @ 216 T/m

**Tim 4G with up to 180 channels<sup>3</sup>**  
32 channels in one FOV

Scalable, **high-performance** coil portfolio

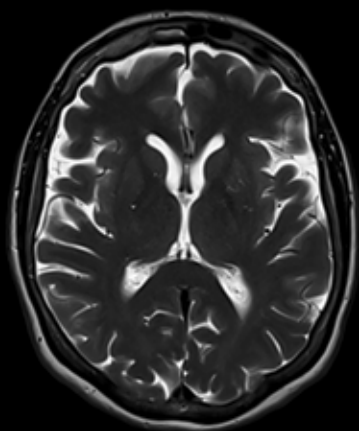


# Faster than ever before

Deep Resolve is at the forefront of the deep learning revolution in MRI with Deep Resolve Boost & Sharp. These technologies use deep neural networks in the reconstruction process to achieve faster scans than ever before, while simultaneously increasing image sharpness and resolution. Across multiple clinical applications, Deep Resolve can further be combined with our unique acceleration technologies such as Simultaneous Multi-Slice (SMS) to produce images of superior quality in a fraction of the acquisition time, a true paradigm shift in MR imaging.



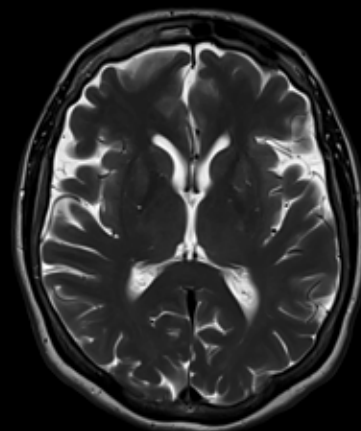
## Conventional



**50%**  
faster

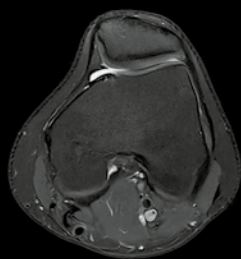
**2×**  
resolution

## Deep Resolve



T2 TSE  
PAT 2  
 $0.4 \times 0.4 \times 5.0 \text{ mm}^3$   
TA 0:52 min

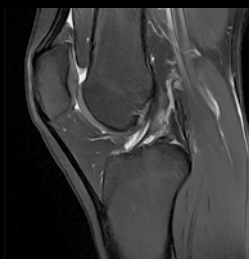
T2 TSE  
PAT 4  
 $0.2 \times 0.2 \times 5.0 \text{ mm}^3$   
TA 0:26 min



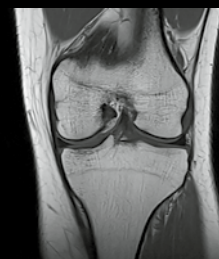
PD TSE fs  
PAT 3, SMS 2, **Deep Resolve**  
 $0.3 \times 0.3 \times 3 \text{ mm}^2$   
TA 1:00 min



PD TSE fs  
PAT 3, SMS 2, **Deep Resolve**  
 $0.3 \times 0.3 \times 3 \text{ mm}^2$   
TA 0:50 min



PD TSE fs  
PAT 3, SMS 2, **Deep Resolve**  
 $0.3 \times 0.3 \times 3 \text{ mm}^2$   
TA 0:43 min



PD TSE fs  
PAT 3, SMS 2, **Deep Resolve**  
 $0.3 \times 0.3 \times 3 \text{ mm}^2$   
TA 0:36 min

1aaaa3995

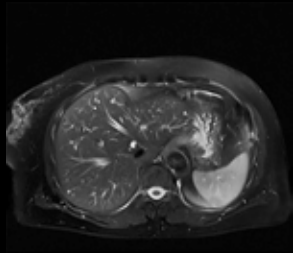


A complete knee examination in 3 min scan time

## Deep Resolve – excellent image quality and acquisition speed

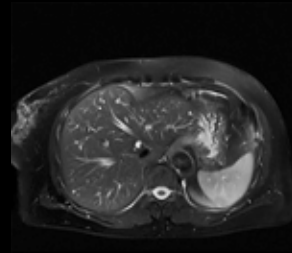
### T2 HASTE fs Deep Resolve

0.5 × 0.5 × 6.0 mm<sup>3</sup>  
TA 0:22 min  
Single breath-hold

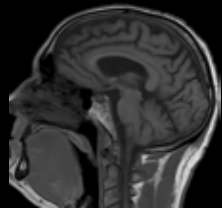


### EPI Diffusion, b800 Deep Resolve

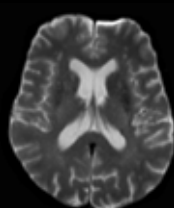
PAT 3  
1.4 × 1.4 × 6.0 mm<sup>3</sup>  
TA 0:59 min



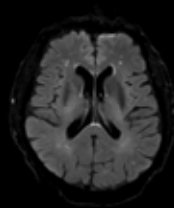
1aaaa4716



T1 flash  
PAT 2  
0.5 mm × 0.5 mm × 5mm<sup>2</sup>  
TA 0:30 min

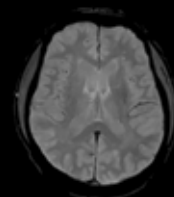


Epi diffusion  
PAT 2  
0.7 mm × 0.7 mm × 5 mm<sup>2</sup>  
TA 1:02 min

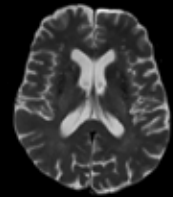


T2 dark fluid  
PAT 2  
1 mm × 1 mm × 5mm<sup>2</sup>  
TA 1:22 min

### Simultaneous Acquisition



T2\*  
PAT 2  
0.9 mm × 0.9 mm × 5 mm<sup>2</sup>  
TA 0:24 min



T2

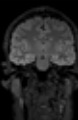
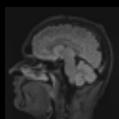
1aaaa5612



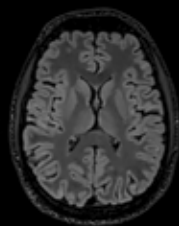
A complete head examination in 3:26 min scan time with Deep Resolve Swift Brain

## Boost speed and image quality in all dimensions

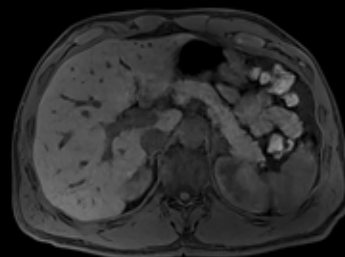
To unlock a new dimension of speed and clarity in 3D MRI. Planned Deep Resolve for SPACE and VIBE.<sup>4</sup>



T2 FLAIR SPACE  
CAIPI 4, **Deep Resolve**  
0.5 mm iso  
TA 3:22 min



1aaaa4655



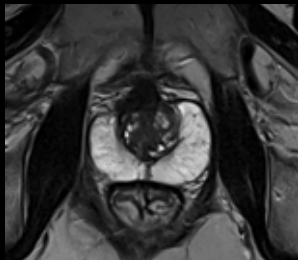
VIBE fs  
CAIPI 4, **Deep Resolve**  
0.6 mm iso  
TA 0:13 min  
Single breath-hold

1aaaa4764

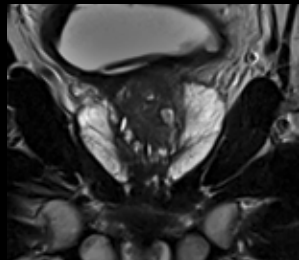
Courtesy of Jones Radiology at Calvary Adelaide Hospital, Adelaide Australia

## Beyond speed. New clinical possibilities

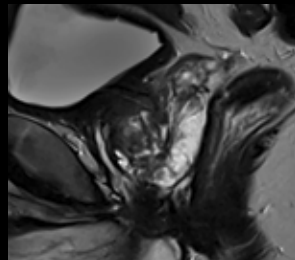
Advanced Prostate MRI – Fast, high image quality, and focused on Your Health.



T2 TSE  
PAT 4, **Deep Resolve**  
 $0.4 \times 0.4 \times 3 \text{ mm}^2$   
TA 0:50 min



T2 TSE  
PAT 4, **Deep Resolve**  
 $0.4 \times 0.4 \times 3 \text{ mm}^2$   
TA 0:41 min



T2 TSE  
PAT 4, **Deep Resolve**  
 $0.4 \times 0.4 \times 3.5 \text{ mm}^2$   
TA 0:49 min

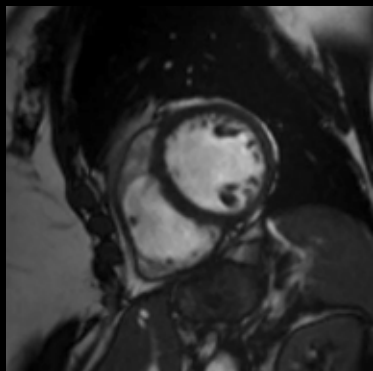


Diffusion (calc. b1000)  
PAT 4, **Deep Resolve**  
 $01 \times 01 \times 3.5 \times 3 \text{ mm}^2$   
TA 1:44 min



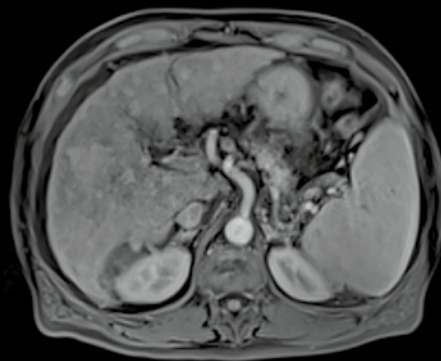
A complete prostate examination in 4:04 min scan time with Deep Resolve

Disruptive imaging technologies, such as Compressed Sensing GRASP VIBE and Compressed Cardiac Cine allows more patients to benefit from advanced diagnostic capabilities



Compressed Sensing Cardiac Cine  
0.5 mm iso  
TA 2:59 min

**New!**



Compressed Sensing GRASP-VIBE  
0.5 mm iso  
TA 2:59 min

1aaaa2010



# A workflow built around humans

The MRI workflow revolves around the interaction between the patient, technologist, and the system. We prioritize designing our technologies to optimize this connection for efficiency and comfort.



Discover **BioMatrix Technology**, our cutting-edge MRI technology designed to seamlessly adapt to each patient's unique anatomy and physiology, ensuring customized solutions for optimal outcomes.



Unlock effortless MRI workflows with **myExam Companion**. Its innovative technologies simplify MR operations, and boost efficiency for seamless imaging experiences.



# Patient centered experience: Efficiency and comfort in perfect synergy

MAGNETOM Altea offers a holistic environment of solutions that put the patient at ease whilst simplifying the workflow



## BioMatrix Sensors

Utilizing our smart and integrated sensors for automatic detection of respiratory and cardiac motion to trigger scans.



## BioMatrix Select&Go

Using AI to streamline the patient positioning workflow

**New!**

Patient registration, positioning, and start scan are now designed to be performed directly at the patient's side<sup>4</sup>



## myExam 3D Camera

Captures the patient's shape, position on the table, and height in three dimensions, making patient positioning up to 48% faster.



A scalable, high-performance coil portfolio allows you to tailor the system to the specific demands of your institution



**New!**

**BioMatrix Contour XL** coil<sup>4</sup> with extra-large coverage of 60 cm x 90 cm, including a rotating cable connection and integrated **BioMatrix Sensors**.



**BioMatrix Head/Neck** coil with 20 channels. Tiltable coil with DirectConnect and integrated **BioMatrix CoilShim**.



Dedicated **MSK coils** such as our TxRx Knee 18 coil provide high-resolution imaging and superior patient comfort.

# Intelligent guidance for imaging excellence

MAGNETOM Altea with **myExam Companion** offers assisted scan workflows that enable reliable imaging results. Using the new possibilities of digitalization and AI, data is turned into integrated expertise and tailored assistance.

## myExam Assist

### Flexible and guided

myExam Assist offers a semi-automated scan workflow that assists the user with smart automation while maintaining full flexibility to tailor the workflow to their needs.

Over 90%<sup>5</sup>  
of MRI exams  
are covered by  
myExam Assist

Offering tailored  
scan strategies



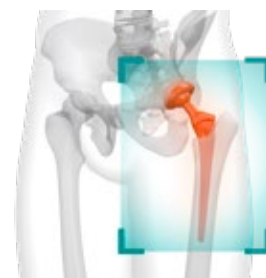
Automated slice  
alignment using  
anatomical  
landmarks enables  
consistency

Adjustable scan  
parameters

## myExam Implant Suite<sup>4</sup>

Our solution ensures a straightforward setup for implant scanning.

- Seamlessly integrate with the registration process.
- Facilitates simple setting of SAR or B1+rms limits and gradient slew rate per axis for MRI examinations, especially for patients with implants.

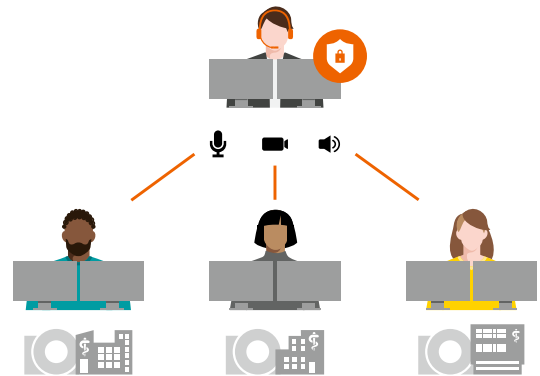


## syngo Virtual Cockpit<sup>6</sup>

Move knowledge, not staff!

Support MRI, CT, PET, and SPECT Scans remotely – independent of location!

- Experts can assist with up to 3 scans simultaneously
- Care teams stay connected through chat, audio, and video
- Easy protocol management from virtually anywhere



## myExam Autopilot

Automate intelligently

myExam Autopilot offers a fully automated scan workflow including a streamlined user interface for the easiest and quickest MRI exam.

Scan with  
virtually a simple  
click of a button

A simplified  
user interface  
to keep the focus  
on what matters



For consistent  
results – no matter  
the user, patient,  
or workload



### AI-powered technologies

myExam Assist and myExam Autopilot have  
AI integrated for consistent image quality



# Toward a sustainable future

At Siemens Healthineers we want to work together with you to positively impact not only the well being of your patients but equally ensure that we use our planet's resources responsibly.

We provide technological solutions that reduce the ecological footprint of MRI and contribute to a more sustainable future in healthcare.



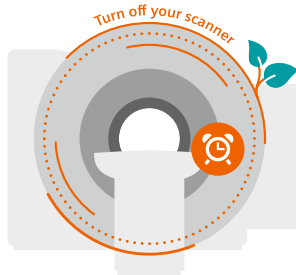
Scan the code or visit  
[siemens-healthineers.com/magnetic-resonance-imaging/sustainability-in-mri](https://www.siemens-healthineers.com/magnetic-resonance-imaging/sustainability-in-mri)  
to find out more

MAGNETOM Altea offers energy saving technologies that holistically apply to daily operations

## How MAGNETOM Altea saves energy:

Energy consumption for an MRI system in one year, if the scanner is always on<sup>7</sup>:

~ **100 MWh**



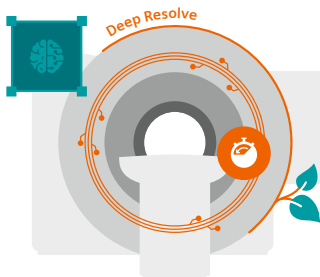
Save ~20% energy by turning off your scanner when not in use<sup>8</sup>

~ **80 MWh**



Save ~12% energy by using Eco Power Mode<sup>9</sup>

~ **70 MWh**



Save ~13% energy by using Deep Resolve<sup>9</sup>

~ **60 MWh**



### Did you know?

The start-up time for our scanners is only approx. 5.5 minutes and with our System Start-Up Timer you can enable automatic start-ups of your scanner in the morning. So your system is ready when the workday starts!

Make the most of our innovations and save ~ **40%** energy!





# Stay connected to be one step ahead

While you focus on caring for your  
patients, we take care of your scanner

Our comprehensive services solutions  
Individual and everywhere



## Guardian Program

Maximize your equipment  
uptime with our continuous multi-  
dimensional monitoring 24/7



## Our service plans

Enhance your  
possibilities and  
stay protected



## Hybrid Learning

Flexible educational  
solutions



Scan the code or visit  
[siemens-healthineers.com/  
services/customer-services](https://www.siemens-healthineers.com/services/customer-services)  
to find out more

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The information in this document contains general technical descriptions of specifications and optional features which do not always have to be present in individual cases. Siemens Healthineers reserves the right to modify the design, packaging, specifications, and options described herein without prior notice. Please contact your local Siemens Healthineers 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.

<sup>1</sup> Depending on the application, the maximum FOV in the z-direction can be up to 500 mm

<sup>2</sup> Maximal gradient performance achieved through vector addition of all three gradient axes simultaneously

<sup>3</sup> Channels (coil elements) that can be connected simultaneously.

<sup>4</sup> The product is still under development and not commercially available. Its future availability cannot be ensured.

<sup>5</sup> Data on file.

<sup>6</sup> syngo Virtual Cockpit is not yet commercially available in all countries and the service offering cannot be guaranteed due to regulatory or other reasons. Please contact your local Siemens Healthineers organization for further details. Precondition: Expert-i enabled or KVM switch connected modalities and appropriately trained personnel operating under applicable federal, state, and local laws as to the specific imaging modality(ies), including radiation and contrast. .

<sup>7</sup> Results were achieved by Siemens Healthineers using both standard and optional features. There can be no 'typical' hospital setting (case mix, system type, etc.) and so results by users may vary with no guarantee that the same results can be achieved.

<sup>8</sup> Values are computed for a MAGNETOM Sola XQ system for illustration purposes.

<sup>9</sup> Results are quantified assuming scanning operations as per COCIR standards.

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**Siemens Healthineers Headquarters**

Siemens Healthineers AG

Siemensstr. 3

91301 Forchheim, Germany

Phone: +49 9191 18-0

[siemens-healthineers.com](https://www.siemens-healthineers.com)