

**MAGNETOM Amira**  
**A BioMatrix System<sup>1</sup>**

**No matter  
what**

[siemens-healthineers.com/amira](http://siemens-healthineers.com/amira)



A BioMatrix  
System



**SIEMENS**  
**Healthineers**

## **MAGNETOM Amira – A BioMatrix System**

# **No matter what**

Acceptable MR image quality can easily be achieved for routine exams. What sets an MR system apart is the ability to deliver high-quality imaging even with complex variables – no matter what. These variables can be due to patient condition, staff management, operational scheduling, and other disruptions. They can lead to additional pressure and reduced reimbursements.

Thanks to our unique technology, MAGNETOM Amira with BioMatrix sets your institution apart by delivering consistently high-quality imaging, providing financial certainty, and expanding clinical opportunities.

With BioMatrix and DotGO, MAGNETOM Amira delivers consistent and reproducible results, regardless of the patient or user. A set of productivity-boosting technologies accelerates the acquisition time with no compromise in image quality for increased patient throughput, driving financial certainty. And with its free-breathing applications, MAGNETOM Amira with BioMatrix improves the patient experience and grants more patients access to advanced MRI exams.

MAGNETOM Amira with BioMatrix truly transforms the way you deliver care to your patients, enabling reproducible high-quality results you can count on – no matter what.



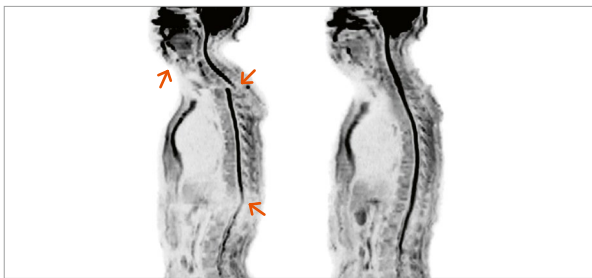
## Contents

Count on consistent quality with BioMatrix and DotGO	4
Count on financial certainty with productivity-boosting technologies	6
Count on new clinical opportunities with free-breathing applications	7

# Count on consistent quality with BioMatrix and DotGO

Each patient is unique. And patient variability and movement can make acquiring a diagnostic MR image difficult. Inconsistency among operators can further affect quality. Having to rescan patients after a failed scan not only impacts patient satisfaction, it also adds to your costs.

With BioMatrix technology and DotGO, you can count on MAGNETOM Amira to give you reliably consistent quality by capturing respiratory motion, adapting to challenging body regions for excellent homogeneity, and decreasing acquisition time.



## BioMatrix – Embrace human nature

BioMatrix technology helps to overcome the challenges caused by biovariability with a whole new approach: By embracing human nature. Instead of expecting patients to adjust to the technology, BioMatrix automatically adjusts to the patient.



### Anticipate

motion for high-quality results with BioMatrix Respiratory Sensor



### Adapt

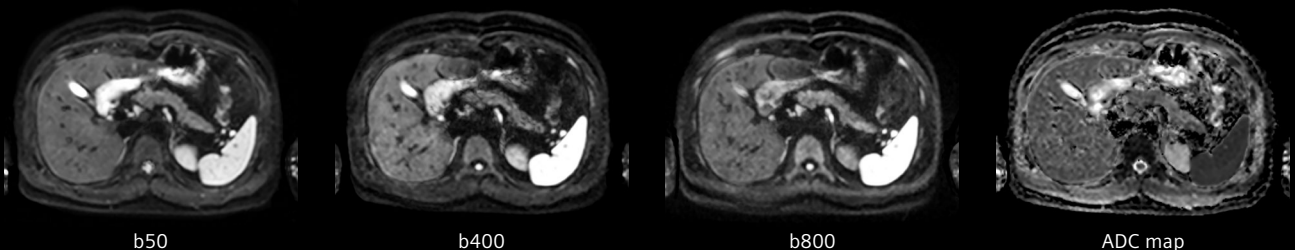
to challenging anatomies for reliable exams with BioMatrix Tuner SliceAdjust



### Accelerate

patient preparation for increased efficiency with BioMatrix Interface Select&GO

## Diffusion-weighted imaging of the liver



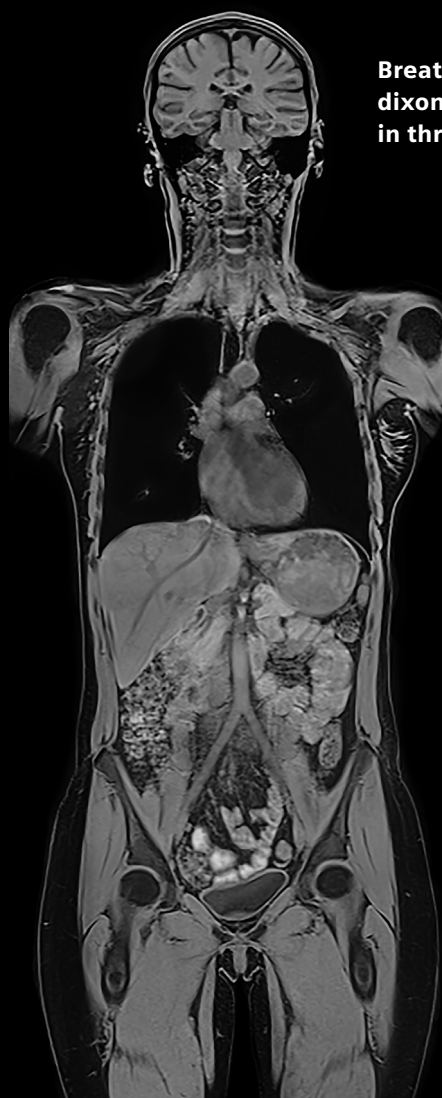
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## Quality results for each exam, with the Dot Engines

The Dot Engines provide guided and automated scan protocols customized to your standards of care. They help users achieve reproducible high-quality image results with increased ease of use and time-efficient exams. This allows users to spend more time concentrating on the patient, rather than on the scan software.

The following Dot Engines are available with MAGNETOM Amira with BioMatrix:

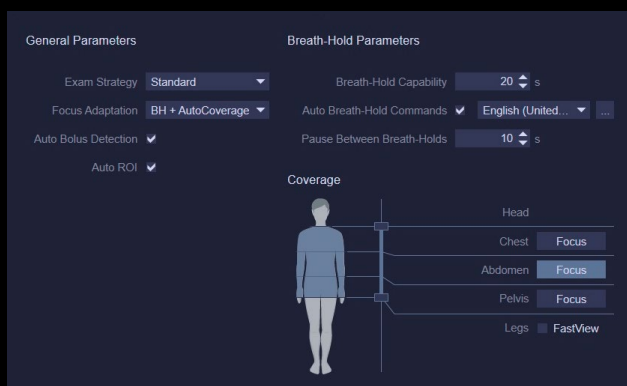
- Brain Dot Engine
- Spine Dot Engine
- Large Joint Dot Engine
- Angio Dot Engine
- Abdomen Dot Engine
- Cardiac Dot Engine
- Breast Dot Engine
- Whole-Body Dot Engine



**Breath-hold VIBE dixon water acquired in three steps**

## Whole-Body Dot Engine

The new Whole-Body Dot Engine reduces the planning and execution of complex, whole-body exams to a few clicks. Simply select which regions need to be scanned, decide whether a focus region should be investigated, and set a few patient-specific parameters (e.g., breath-hold capability).





# Count on financial certainty with productivity-boosting technologies

Finding a way to reconcile productivity improvements and cost savings while providing high-quality care is a major challenge in today's healthcare industry. Overwhelming workloads and operating costs can drive down profits from your MR operations.

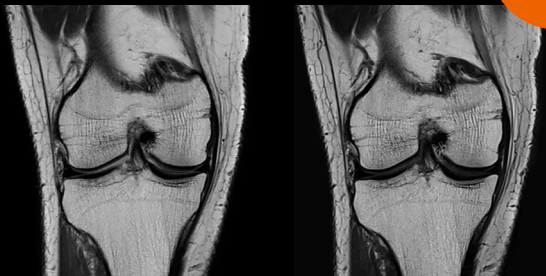
MAGNETOM Amira with BioMatrix provides financial security by increasing patient throughput and delivering high-quality results with Simultaneous Multi-Slice and GO applications – also available with the new Turbo Suite packages. In addition, Eco-Power reduces energy consumption by up to 30%<sup>2</sup> when the system is in stand-by mode.

## Simultaneous Multi-Slice

Simultaneous Multi-Slice TSE can dramatically reduce scan times for routine examinations. It helps enhance your efficiency and optimize clinical operations.

Acquired with UltraFlex Large 18 coil

1a0aa2464



PD TSE Cor,  
matrix 314x448,  
GRAPPA 2,  
TA 2:49 min

PD TSE Cor,  
matrix 314x448,  
GRAPPA 2, SMS 2,  
TA 1:01 min

TA 1:01 min  
with  
SMS TSE

## Segmented time-of-flight

Segmented time-of-flight enables faster non-contrast MRA exams without compromising image quality.



Conventional TOF  
TA 6:06 min

1a0aa2470

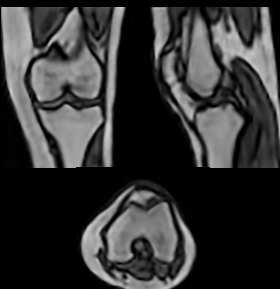
Segmented TOF  
TA 4:30 min

25% faster

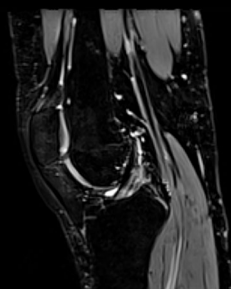
## GOKnee3D

GOKnee3D is the new clinically validated push-button, high-resolution 3D knee exam. Thanks to CAIPIRINHA SPACE, you can now acquire submillimeter 3D isotropic scans faster than ever before.

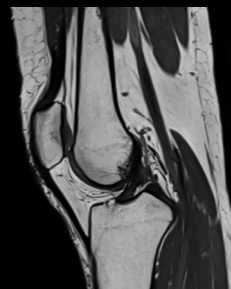
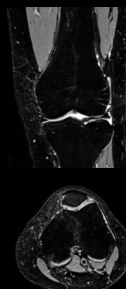
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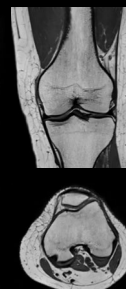
AutoAlign localizer  
TA 16 s



IW/T2 FS, 0.8 mm iso  
TA 5:56 min



IW/PD, 0.6 mm iso  
TA 4:03 min



TA 10:16 min

# Count on new clinical opportunities with free-breathing applications

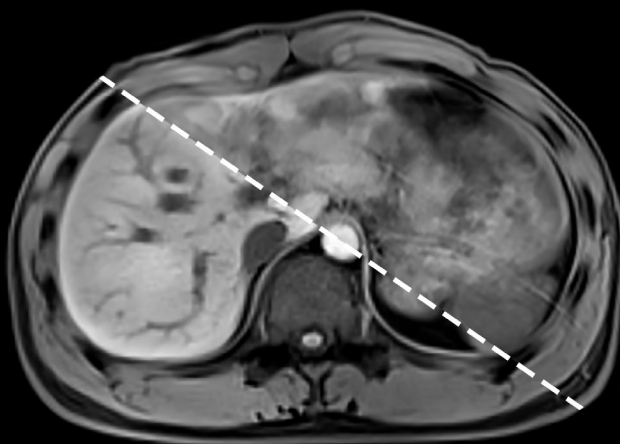
To set yourself apart as a healthcare provider, you want to differentiate your institution through unique MRI services to attract more patients and referrers.

MAGNETOM Amira with BioMatrix opens up new clinical capabilities that increase patient access to advanced MRI exams. Compressed Sensing provides a better patient experience by enabling free-breathing body and cardiac examinations – thereby transforming care delivery.

## Compressed Sensing GRASP-VIBE

- Provides push-button, free-breathing liver dynamics
- Removes timing challenges in dynamic imaging, and respiratory artifacts
- Outperforms Cartesian VIBE acquisition under free breathing

Free breathing with  
Compressed Sensing  
GRASP-VIBE



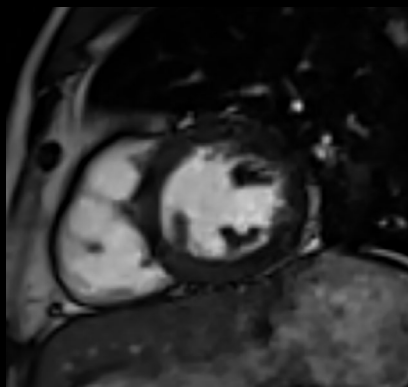
Suboptimal  
breath-hold VIBE

## Compressed Sensing Cardiac Cine

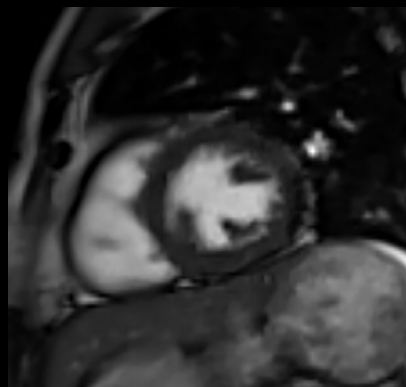
Cardiac function evaluation can now be offered to all patients – even those with arrhythmia.

- Acquire free-breathing, high-resolution Cardiac Cine images
- Capture the whole cardiac cycle for precise quantification
- Expand the patient population eligible for cardiac MRI

1a00a2410



Compressed  
Sensing Cardiac  
Cine segmented  
TrueFISP with  
one breath-hold  
(acquired in  
two heartbeats)



Compressed  
Sensing Cardiac  
Cine TrueFISP  
real-time  
acquired with  
free-breathing

**International version. Not for distribution or use in the U.S.**

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<sup>1</sup> MAGNETOM Amira – A BioMatrix System is 510(k) pending. It is not commercially available in all countries. Due to regulatory reasons the future availability cannot be guaranteed.

<sup>2</sup> Data on file.

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