

3T Applications



MAGNETOM Trio
3T Unlimited in MR Angiography

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MAGNETOM Trio is 3T Unlimited

3T MR systems are attracting a great deal of attention as new hardware and software are available for whole-body applications. In the area of MR Angiography, 3T benefits Time of Flight (ToF) techniques as T1 of blood and stationary tissue become longer, therefore increasing the signal of the vessels and decreasing background signal. For contrast-enhanced studies, the increased 3T SNR offers the potential to increase resolution with the same dose of contrast, for better diagnostic information.

MAGNETOM Trio is a 3T whole-body MR system that exploits the 3T advantages in all applications. Large FoV in all 3 axis, best homogeneity, advanced coil technology, standard 8 RF channels, iPAT applications, gradient speed are some of the many components that contribute to the quality of 3T MR on MAGNETOM Trio.

The benefits of MAGNETOM Trio in MR angiography

- Most advanced RF system with 8 independent channels in standard to support the latest high SNR array coil technology
- Fastest gradients on large FoV (200 T/m/s slew rate)
- Best homogeneity of 0.30 ppm on 40 cm FoV, including in the z-direction for best acquisitions in peripheral and renal MRA
- Largest diversity of array coils for complete application spectrum: body array (8 elements), neurovascular array (8-elements)
- iPAT is standard for fast, low SAR acquisitions
- syngo ergonomic user-interface so that you can concentrate on your examination and not the handling
- Inline Technology – processing instead of post-processing

Inline Technology on the syngo user-interface

- Get your results while the patient is still on the table
- Automatic subtraction
- Automatic MIP in main orientations



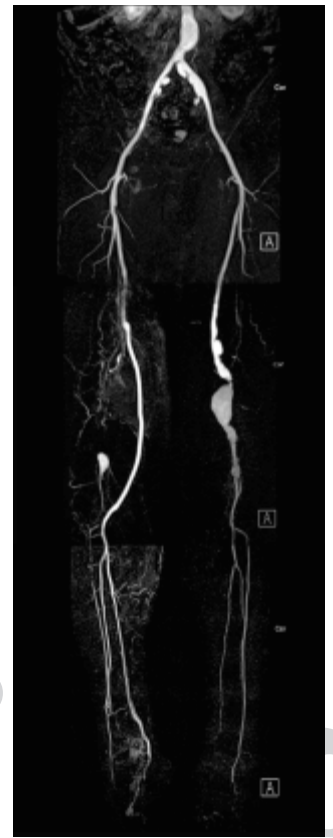
**Inline
Technology**

Peripheral MR Angiography

Integrated SAR-optimized body coil

*3D FLASH acquisition in 1:30 min
Acquired in 3 steps with auto-
matic table move for reliable
results*

*The design of the integrated
body coil of MAGNETOM Trio
shows excellent signal-to-noise,
enabling the visualization of
even small vessels of the lower
leg.*

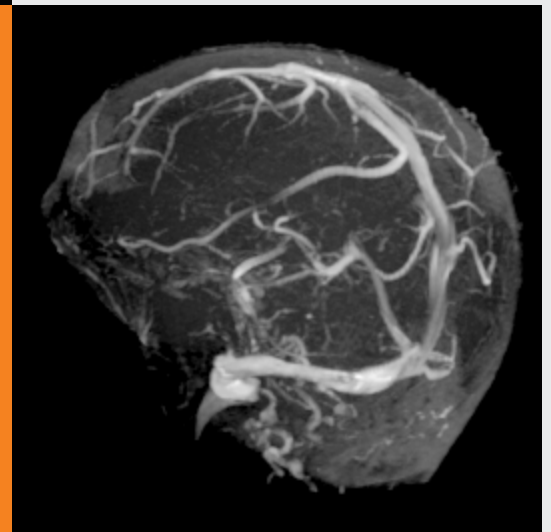
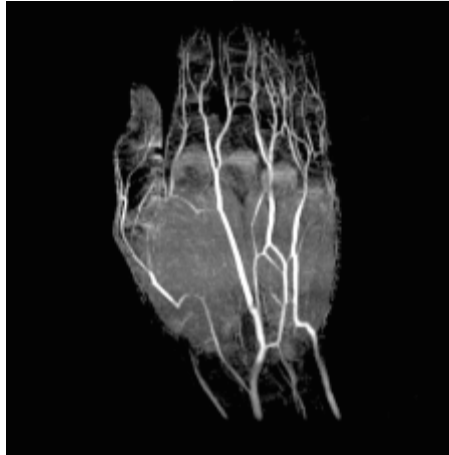


3T Unlimited

Time of Flight MRA of the hand with water excitation

*Without the use of contrast agent
Wrist coil*

Longer T1 at 3T provides excellent inherent contrast for time-of-flight techniques. Excellent background suppression is enhanced with the water excitation technique.

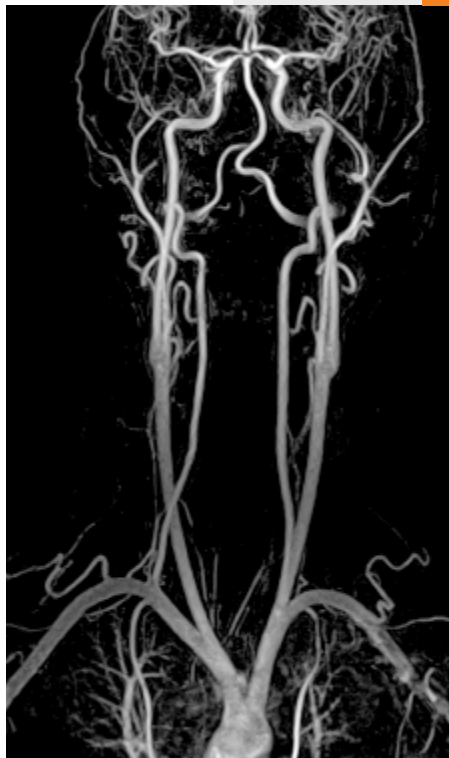


2D Phase contrast of the sagittal sinus

*2D FLASH, phase contrast,
4.5 s / slice
CP head coil*

3D high-resolution contrast-enhanced carotid MRA

*3D FLASH,
standard contrast dose
Neurovascular array
Very high-resolution imaging:
80 partitions, 0.9 slice thickness,
512 matrix in only 35 seconds
with the Trio gradients*





MAGNETOM Trio^[UHF Class] 3T Unlimited

Siemens' successful 3T strategy is called simply 3T Unlimited. Our 3T systems match all the performance parameters of a high-end 1.5T system: 3T Technology – Unlimited.

We have developed applications offering all the 3T benefits without the 3T limitations: 3T Applications – Unlimited.

We provide systems that include all the workflow benefits expected in a MAGNETOM: 3T Efficiency – Unlimited.

3T Technology – Unlimited

- Uncompromised homogeneity in a 40 x 40 x 40 cm field of view
- 8 fast RF-channels are standard
- Fastest gradients in the industry: 200 T/m/s

3T Applications – Unlimited

- 3TCare to reduce SAR and maximize anatomical coverage (Hyperechoes, iPAT, and body coil)
- Largest diversity of array coils
- iPAT to get a hold on susceptibility

3T Efficiency – Unlimited

- *syngo* – optimized for clinical workflow
- Inline Technology – processing instead of post-processing
- EVOLVE – a subscription for the future

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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