

# 3T Applications



**MAGNETOM Trio**  
3T Unlimited in Body MR

# MAGNETOM Trio

## 3T Unlimited in Body MR

### 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. New coil designs combined with iPAT technology pave the way for fast, excellent image quality with body MR at 3T.

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, array 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 and make it a solid investment for the future.

### The benefits of MAGNETOM Trio in Body MR:

- Most advanced RF system with 8 independent channels in standard to support the latest high SNR array coil technology
- Best homogeneity of 0.30 ppm on 40 cm FoV, including in the z-direction for best coronal abdominal and spine images
- Largest diversity of array coils for complete application spectrum: body array (8 elements), spine array (12 elements), cardiac 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

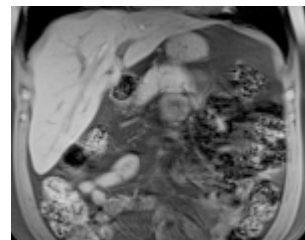
### Large FoV fast acquisitions abdominal imaging

*2D FLASH FatSat, 40 cm FoV, with iPAT 2 and 3*

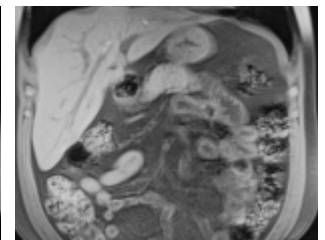
*Body array*

*Excellent homogeneity including in the z-direction guarantee an excellent fat saturation.*

*In addition, the standard flexible iPAT feature enables speeding your acquisition times.*



*With iPAT 2, TA: 15 s*



*With iPAT 3, TA: 11 s*

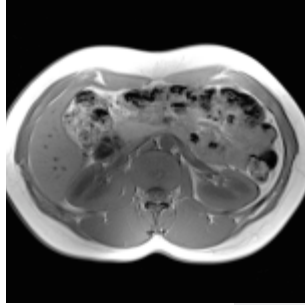


# 3T Unlimited

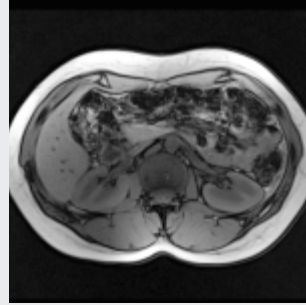
## Abdominal imaging at 3T

### FLASH imaging at 3T

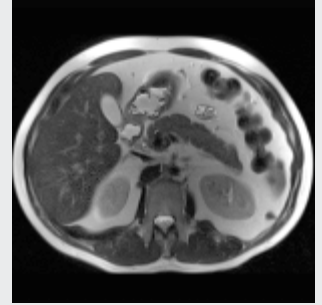
2D FLASH,  
TR 108 ms, TA: 20.6 s x 2  
Body array



In phase: TE 2.5 ms



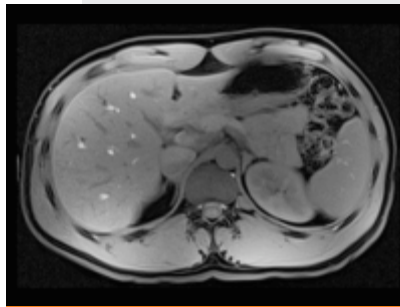
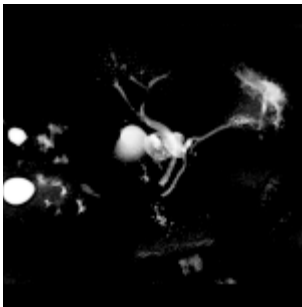
Opposite phase: TE 6.2 ms



iPAT HASTE imaging at 3T  
HASTE, TR / TE 2000 / 90 ms,  
iPAT 2, TA: 0.39 s  
Body array

## MR Cholangiography at 3T

Body array

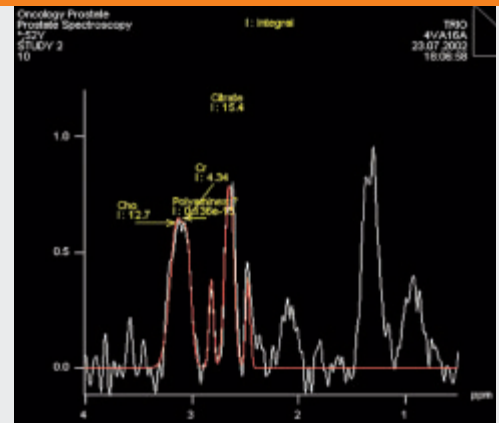
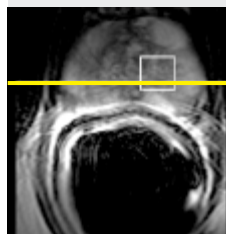


Liver imaging at 3T  
Body Array

## Very fast 3T MR spectroscopy of the prostate

1 cm<sup>3</sup>, 39 s acquisition time!  
WIP\* endorectal coil (MedRad Inc.)

3T increased SNR and chemical shift enable fast acquisitions and a nice separation of the metabolite peaks in the spectrum. (Courtesy of Heerschap, Barentsz, Fütterer, Klomp, Scheenen, Nijmegen, Netherlands).



\*This information about this product is preliminary. The product is under development and not commercially available in the U.S., and its future availability cannot be ensured.



## MAGNETOM Trio<sup>[UHF Class]</sup> 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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