

MAGNETOM Family



MAGNETOM Maestro Class

Advanced Turbo package with iPAT and PACE

Advanced Turbo package

- Single shot Turbo Spin Echo (TSE) and HASTE sequence for excellent Magnetic Resonance Cholangio-Pancreatography (MRCP)
- TrueFISP sequence for high contrast body imaging
- Segmented 3D Echo Planar Imaging (EPI) sequence for fast brain imaging
- PSIF sequence for diffusion imaging of the spine
- 2D Prospective Acquisition CorrEction (PACE) with HASTE and TrueFISP to enhance body imaging
- integrated Parallel Acquisition Technique (iPAT) for increased speed and/or resolution

Content

Advanced fast imaging sequences

- 2D/3D single shot Turbo Spin Echo
- 2D/3D HASTE
- 2D/3D HASTE IR
- 2D/3D TrueFISP with fat sat
- Segmented 2D/3D EPI (SE and FID)
- PSIF diffusion
- HASTE and TrueFISP with 2D PACE

MRCP with single shot Turbo SE

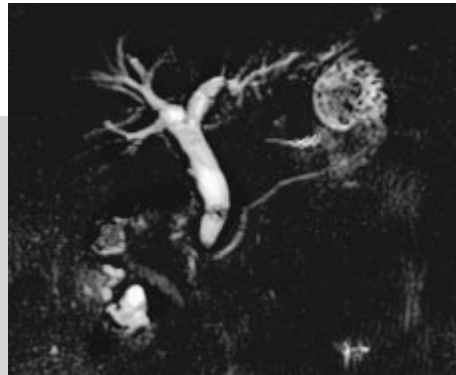
Excellent MRCP with thick slab technique and thin slice technique

Can detect:

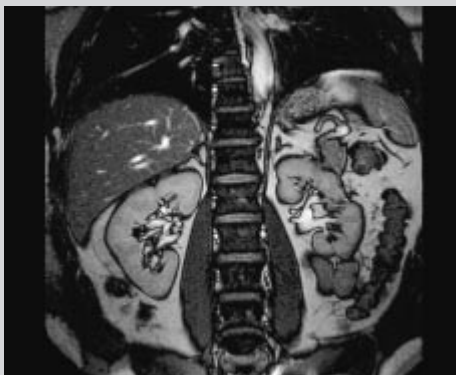
- Secondary intrahepatic anomalies
- Millimeter stones
- Minimal dilatations
- Non-invasive biliary disease



Single shot TSE,
common bile duct stone



2D HASTE common bile duct stone
2 sec / slice



2D TrueFISP, TE = 1.9 ms, TR = 3.9 ms



2D TrueFISP, TE = 2.2 ms, TR = 4.5 ms

TrueFISP body imaging

Excellent T2 weighted abdominal imaging using 2D/3D TrueFISP with fat sat

- For precise diagnostics
- To reduce chemical shift artifacts

Neuro imaging with segmented 3D EPI

- For high temporal resolution with 3D imaging
- Reduced distortion as compared to single shot EPI
- Improved signal-to-noise ratio

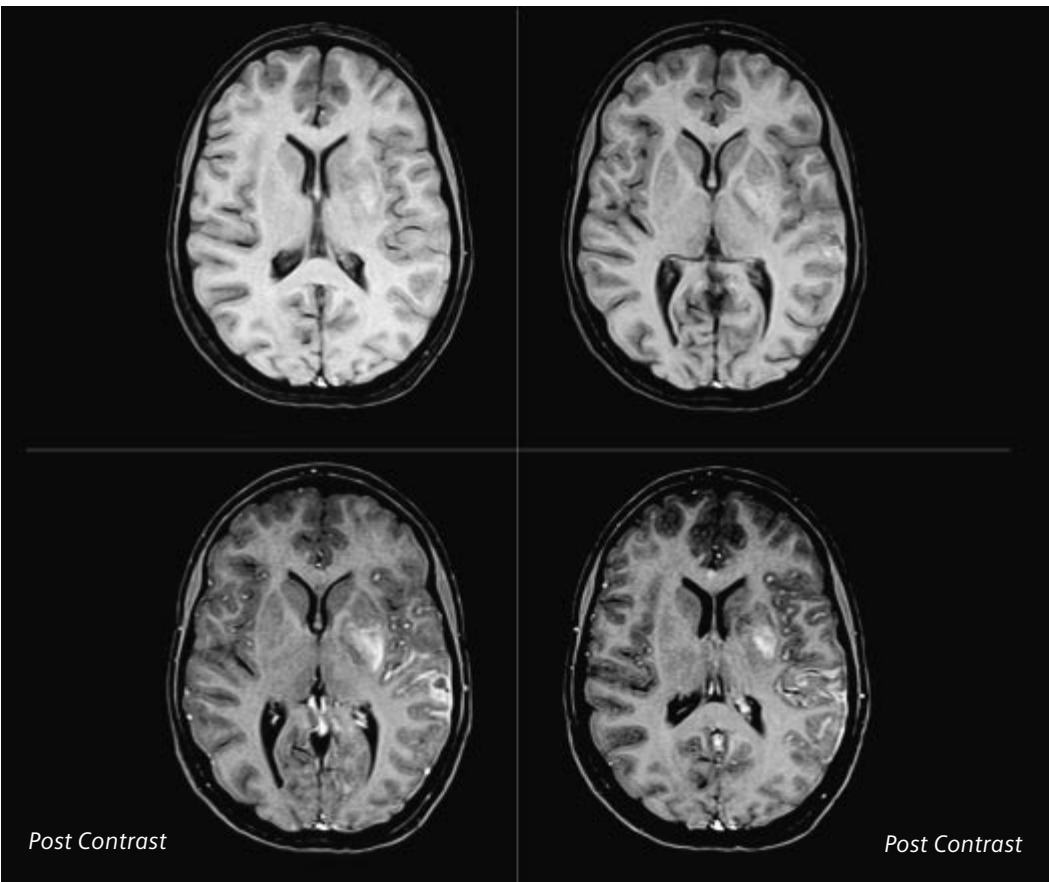
Spine diffusion imaging

Diffusion imaging in MRI is a well-established technique particularly in stroke diagnostics.

The diffusion technique is now used for other body parts as well.

PSIF diffusion technique for the spine:

- Helps to differentiate osteoporosis from tumor infiltration
- Post radiotherapy changes versus residual tumor



2D TrueFISP with fat sat

Advanced Turbo package

2D PACE

- 2D PACE – motion under control
For free breathing examinations without any breath-hold or multi-breath-hold examinations of shorter durations
- 2D PACE detects and corrects motion in two directions
- 2D PACE with HASTE and TrueFISP sequences

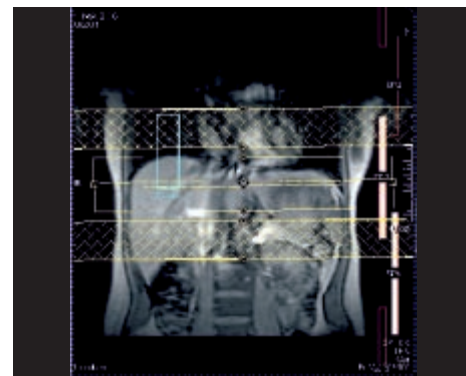
PACE your applications

2D PACE allows for all relevant scanning techniques to:

- Follow motion between multiple breath hold commands
- Acquire free breathing images

The 2D PACE advanced motion correction technique provides:

- Optimal patient comfort
- Good and consistent image quality
- Precise diagnosis even for smaller lesions



2D PACE grid

Summary

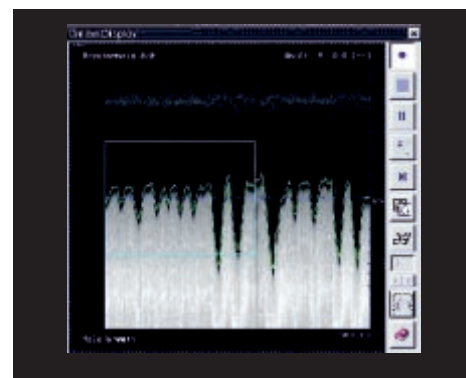
- Non-invasive, high resolution MRCP with single shot TSE and HASTE
- TrueFISP for body imaging with excellent tissue contrast
- Neuro imaging with segmented 3D EPI for high temporal resolution
- PSIF diffusion in the spine e.g. to differentiate osteoporosis from tumor
- Combination of advanced turbo package and iPAT provides highest speed and resolution
- 2D PACE unique to Siemens

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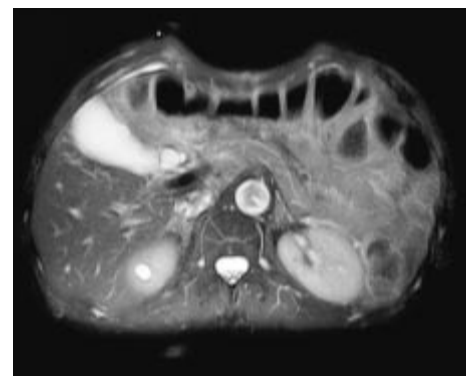
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Online display, breath-hold data acquisition



Free-breathing 2D HASTE T2 transverse with 2D PACE

Siemens **Medical Solutions** that help