Learn more

MAGNETOM Combi Suite Neurosurgery online

Explore the different combinations for your intraoperative setting with our MAGNETOM Combi Suite configurator. It also features our MRI intelligence solutions for cardiovascular interventions and radiation therapy.

www.siemens.com/mri-in-neurosurgery

Peer-to-peer clinical tips and information.

MAGNETOM World is the community of Siemens MR users worldwide, providing you with relevant clinical information at your fingertips.

www.siemens.com/magnetom-world

[1] Kuhnt, D. et al. (2011). Correlation of the extent of tumor volume resection and patient survival in surgery of glioblastoma multiform with high-field intraoperative MRI guidance. Neuro-Oncology, 13 (12), 1339-1348.

[2] Roder, C. et al. (2013). Maximizing the extent of resection and survival benefit of patients in glioblastoma surgery: High-f ield iMRI versus conventional and 5-ALA-assisted surgery. EUR J Surg Oncol, in press.

[3] Based on the scan time difference between a 30-channel set-up and an 18-channel set-up with otherwise identical parameters and same SNR.

[4] Currently under development; not for sale in the U.S. and other countries, future availability cannot be guaranteed

[5] University Hospital Essen, Brain Dot Engine Workflow Study, GER

[6] Medical Device in its own right.

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MAGNETOM Combi Suite Neurosurgery

Improve the management of brain tumor patients

Combining MRI intelligence and therapeutic expertise

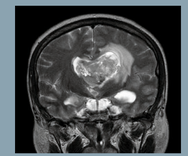
MAGNETOM Combi Suite Neurosurgery

MRI guidance in neurosurgery can significantly improve the management of brain tumor patients:

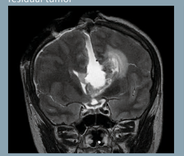
- Revealing residual tumor in 65% of patients in an intraoperative setting[1].
- Maximizing the extent of resection, improving patient survival by up to 55%[1].
- Helping to achieve five times more total resections, compared to white-light surgery[2].

MAGNETOM Combi Suite Neurosurgery combines premium MRI technology with state-of-the art OR solutions. Resulting in highly detailed image quality, safe, efficient patient set-up and -transport, as well as cost-effective and flexible solutions for siting and OR tables.

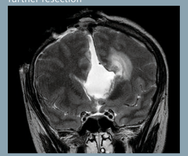
Preoperative scan



Intraoperative scan shows residual tumor



Intraoperative scan after further resection



Courtesy of University Hospital Erlangen, Germany

MAGNETOM Aera and
MAGNETOM Skyra

Siemens' top-of-the line MRI systems for optimizing your neurosurgical procedures – before, during and after surgery.

1. Deliver exceptional quality and speed in MRI – Tim® 4G Technology

- Up to 204 coil elements. Up to 128 RF channels
- Exceptional SNR and image quality with Tim 4G's high-channel coils and the unique RF architecture enabling DirectRF for true signal purity
- Excellent image quality with up to 40% reduction of scan times[1]

2. Go for consistent results, efficiently – with DotGo Workflow

- Intuitive protocol management with one central and flexible user interface
- Quality results for each exam, consistent and reproducible
- Up to 20% shorter exam slots for more efficiency in MRI[2]

3. Expand your MRI services – Trendsetting Applications and Life Design

- A full range of advanced clinical applications
- Better access and more satisfied patients due to 70 cm Open Bore, short system length, and light-weight coils

Excellence in imaging

MRI-guided neurosurgery with MAGNETOM Aera and MAGNETOM Skyra

MAGNETOM Skyra 3T.

Maximize 3T. Every case.
Every day.

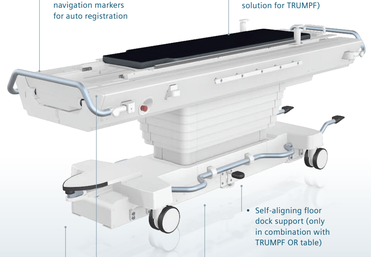
MAGNETOM Aera 1.5T.

Maximize 1.5T. Every case.
Every day.

Efficiency in workflow

Single patient transfer and flexible patient positioning with the Combi Dockable Table Neurosurgery

- MR compatible head holder[4]
- 8 channel head coil[5] with integrated navigation markers for auto registration
- Single patient transfers each way with no patient repositioning (image shows transfer board solution for TRUMPF)



- Self-aligning floor dock support (only in combination with TRUMPF OR table)
- Self-aligning dock at MR
- Docking and undocking of table from MR possible with all coils plugged in
- Greater flexibility in patient positioning with 55 mm under the transfer board
- Enhanced maneuverability and operability with central brake and 5th wheel

Flexibility in neurosurgery

Flexible neurosurgery options with a choice of compatible OR Tables

The flexibility you need in the OR:

- Choice of two different OR Tables[6]
- Compatible head holders with 8 channel coils[6]
- Head holders easily positioned on transfer board, extending beyond the OR table
- Greater flexibility in head positioning with up to 55 mm below the transfer board

MAQUET Magnus 1180

TRUMPF TruSystem 7500

Effectiveness in operation

Easy siting and integration of MRI systems with different room solutions

With their small footprints, MAGNETOM Aera and MAGNETOM Skyra are easy to site and quickly integrated in your intraoperative setting.

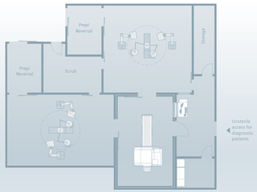
Being a complete, yet flexible solution, MAGNETOM Combi Suite Neurosurgery provides great versatility to fit your needs and ensures optimal use of your facilities.

Two-room siting scenario

Combine one operating room with one MR room open for routine diagnostics.

Three-room siting scenario

Possibility to have two operating rooms combined with one MR room open for routine diagnostics.



Combine

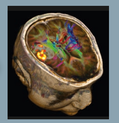
MAGNETOM Combi Suite Neurosurgery – for a smooth and robust workflow

Connecting the Combi Dockable Table to the operating table.

One single transfer onto the Combi Dockable Table.

Connecting the Combi Dockable Table with the MAGNETOM system.

Scanning the patient.



The combination of high-resolution, high contrast, 3D anatomical imaging with perfusion and diffusion tensor information may provide crucial information to the neurosurgeon. The ability to simultaneously evaluate all this information within a single 3D image can help surgical planning before and during surgery and also for patient follow-up.

Courtesy of Fakultní Nemocnice, Plzen, Czech Republic