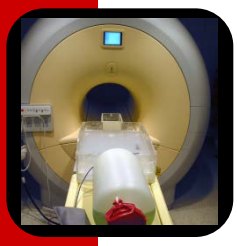
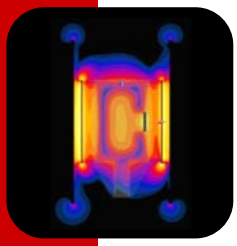
gyrotools.
SOLUTIONS FOR RESEARCH





MR - Testing

Ensure MR-safety and MR-compatibility of your products during development and for regulatory approval.

GyroTools offers support in experimental MR-testing and numerical analysis during the entire development cycle and for CE- and FDA-certification.

• MR safety:

Active and passive implants and devices are a safety risk in the MR environment. The strong magnetic field may exercises forces on ferromagnetic components, the RF and the gradient fields may induce currents and heat up surrounding tissue, and implants may elicit image artifacts that impede an accurate diagnosis.

Regulations require detailed safety evaluation and MRI compatibility testing for any type of implants.

In-vitro testing on clinical MR devices is an essential requirement for regulatory product approval.

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• MR safety tests:

Safety evaluation of implants in the MR environment includes:

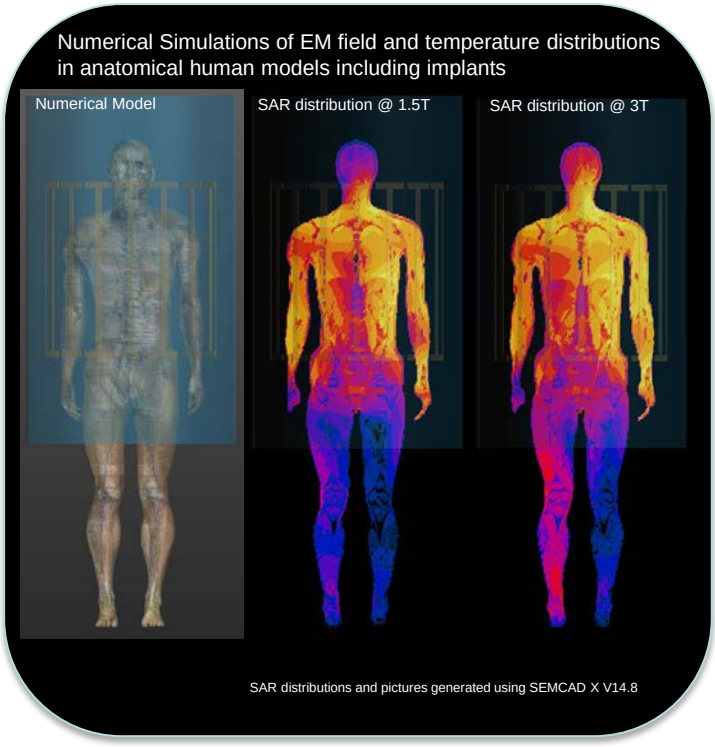
- probing magnetically induced displacement force
- probing magnetically induced torque effects
- measuring heating due to the RF field
- assessing image artifacts
- Numerical simulation of SAR, temperature, and electromagnetic field distributions

Test protocols according to the standards:

- ASTM F2052
- ASTM F2213
- ASTM F2182
- ASTM F2119
- ISO/TS 10974

• Additional support:

- R&D support for new products operating in and/or on-body in the MR environment (e.g. implants, coils, wireless communication systems, etc.)
- Consulting during the entire development cycle.



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