

A Siemens Aera MRI machine with a patient lying on the table inside the bore. The Siemens logo is visible on the machine's exterior. A small screen above the patient shows a diagram of the MRI coil and a blue arrow indicating motion.

SIEMENS

usa.siemens.com/healthcare

The clinical and financial impact of patient motion during MRI

How Siemens MRI technology helps you overcome it.

The Cost of Motion in MRI

20% 

of all MRI exams were repeated¹


\$115,000
per scanner¹

Yearly potential cost of motion artifacts in MRI exams

Jalal B. Andre, et al at Harborview Medical Center completed a retrospective review of one randomly selected full calendar week of MRI examinations to determine the significance of motion artifacts. A base-case cost estimate was computed from recently available institutional data, and correlated with sequence time and severity of motion artifacts¹.

The study concluded: "Motion artifacts represent a frequent cause of MRI degradation, particularly for inpatient and emergency department patients, resulting in substantial costs to the radiology department. Greater attention and resources should be directed toward providing practical solutions to this dilemma."¹

Pioneering Motion Correction and Artifact Reduction

At Siemens, we're making MRI easier with groundbreaking technologies that can prevent or correct motion artifacts. With them, you have the potential to:

- Improve departmental efficiency.
- Enhance patient and staff satisfaction.
- Achieve a high level of clinical confidence.
- Reduce costs associated with your MRI service.

And, you can enable reliable imaging of patients who might otherwise be excluded from MRI, potentially giving those patients more or different treatment options due to more accurate results. You may also reduce the need for sedation in certain patient populations.

Learn more about Siemens commitment to reducing motion in MRI. Visit www.usa.siemens.com/bodymri.

“Motion artifacts are the primary detriment to quality body MR imaging. StarVIBE is an integral part of our routine abdominal Dot protocol, providing consistent diagnostic quality for free-breathing exam strategies.”

Puneet Sharma, Ph.D.
MRI Physicist
The University of Arizona

FREEZEit

FREEZEit enables high-quality imaging during free-breathing abdominal, exams by intelligently resisting motion artifacts. This same technology enables motion-free imaging in other areas of the body including the head and neck.

StarVIBE

StarVIBE, an MRI pulse sequence, enables free-breathing, contrast-enhanced liver imaging for patients.

iPAT

Siemens' integrated parallel imaging techniques increase the speed of image acquisition for reduced motion in MRI.

Blade

Visualize the smallest lesions even during involuntary motion like pulsation or respiration with Blade. By reducing physiologic motion artifacts, Blade can support greater patient comfort and enable a high level of clinical confidence in the images.

1D/2D PACE

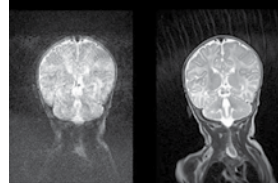
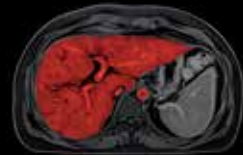
With 1D/2D PACE, detection and correction of respiratory motion is easier. This technology can significantly reduce motion artifacts, especially in heart and liver imaging.

3D PACE

Improve workflow and image acquisition with fully automatic 3D prospective motion correction during data acquisition. 3D PACE supports increased functional MRI sensitivity and specificity.

Quiet Suite

With Quiet Suite, MRI sound pressure is reduced by up to 97 percent² using optimized gradient switching to lower the noise. A quieter MRI experience can reduce patient anxiety, which can help limit patient motion during acquisition.



On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and is subject to change without prior notice. Some/All of the features and products described herein may not be available in the United States.

The information in this document contains general technical descriptions of specifications and options as well as standard and optional features, which do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications, and options described herein without prior notice. Please contact your local Siemens sales representative for the most current information.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

¹Andre J, Bresnahan B, Mossa-Basha M, et al. Towards Quantifying the Prevalence, Severity, and Cost Associated with Patient Motion During Clinical MR Examinations. J Am Coll Radiol 2015 Jul;12(7):689-95.

²Data on file. Results may vary.

The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" setting and many variables exist there can be no guarantee that other customers will achieve the same results.

Global Business Unit

Siemens Healthcare GmbH
Magnetic Resonance
Henkestr. 127
DE-91052 Erlangen
Germany
Phone: +49 9131 84-0
siemens.com/healthcare

Local Contact Information

Siemens Medical Solutions USA, Inc.
40 Liberty Boulevard
Malvern, PA 19355-9998
USA
Phone: +1-888-826-9702
usa.siemens.com/healthcare

Siemens Healthcare Headquarters

Siemens Healthcare GmbH
Henkestraße 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
siemens.com/healthcare

Legal Manufacturer

Siemens Healthcare GmbH
Henkestr. 127
DE-91052 Erlangen
Germany