

## Patient Stress Slows MRI Workflows



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According to a study recently published in the *Journal of the American College of Radiology*, MRI for many patients is stressful, affecting the imaging workflow.

Up to 37% of patients feel moderate anxiety during MRI exams, which may necessitate sedation or abandonment of the exam altogether. To understand how to reduce patient stress, researchers from Friedrich-Alexander-University Erlangen Nuremberg (Erlangen, Germany) and Siemens Healthineers gathered the psychological or physiological responses from 96 patients undergoing MRI exams. These responses included questionnaires on anxiety, strain, agitation, and mood and tests for salivary  $\alpha$ -amylase and cortisol before and after the MRI to gauge factors that influence patient reactions and the resulting impact on outcomes.

They found that patients stress and anxiety before MRI predicted the need for longer exam time and a repeat scan. About one-third of the patients experienced moderate to severe anxiety, and two chose to end their scans prematurely. All psychological and physiological stress measures improved from pre- to post-MRI, except  $\alpha$ -amylase. Stronger cortisol responses were associated with worse psychological states. Patients who reported worse past experiences also showed higher negative psychological measures and cortisol, which were also consistently associated with outcomes (rescans, scan duration, etc.).

The study authors conclude that the factors contributing to stress and anxiety during MRI should be 'considered in the medical treatment to provide both a positive patient experience and smooth clinical workflows.'

**Source:** [Journal of the American College of Radiology](#)

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