

# Why We Should Reduce Sedation in Pediatric MRI and What We Need to Do It

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With its excellent soft tissue contrast for distinguishing between normal and abnormal tissue, MRI remains one of the most powerful imaging tools we as clinicians have. In clinical practice, it can offer us information that truly can't be obtained any other way. And yet as powerful a tool as MRI is, it can be challenging to perform an MRI exam on some adults – and particularly on children\* – without sedation. However, sedation itself poses its own risks.

When you give any medication to a patient, there is always the risk of an allergic or adverse reaction. In very rare cases, this can even result in death. Even if we discount these rare allergic reactions to sedation, any child or adult who receives sedation requires a longer recovery period after the exam. Patients may feel nauseated or groggy and they cannot rapidly return to normal activities. Among pediatric patients, these effects – and the risks associated with them – are further amplified.

Perhaps, the greatest risk to children is the risk of foregoing an important exam because of fear of sedation. As a parent myself and in speaking to other parents, I know this is a real fear. Some parents might withhold what might be a very valuable imaging exam, one that provides more and better clinical information, out of fear.

Over the years, there have been many attempts to reduce pediatric sedation in response to patient and parent anxieties. Practices have tried painting exam rooms and using decals to make exam rooms more child-friendly. Some imaging departments allow children to play music or watch videos to further distract them during their exams. To some degree, these programs are helpful.

As an industry, though, we could learn from pediatric dentists, who have made significant inroads to distracting their young patients and reducing their anxiety. For example, many dental practices allow children to pick a small toy after the exam, which leaves the child with a good memory for the next visit. That's a technique we don't typically use in imaging and one we should employ as part of a larger, more comprehensive program that addresses the anxieties and questions children and their parents have before the exam, during their visit, and, in many cases, after they leave.

By helping children understand what an MRI is, including what it looks like, what it sounds like, and what

it does, I am convinced we can make a difference. I don't think we give 5- or 6-year-old children enough credit when it comes to their ability to understand and cooperate during an exam. With the right education before the exam, I am 100 percent convinced we can lower the rates of pediatric sedation.

That's what this new educational program strives to do. We are working to provide children and their parents with the tools and information they need to be more comfortable with an MRI exam – before they even come in for it. This can reduce patient and parental anxieties and limit the need for sedation for many children. In addition, reduction in sedation will eventually improve workflow efficiency and decrease costs. When a fun, educational program becomes part of routine imaging practice, positive results will follow – and not just in children. Adults could benefit from more and better education about what to expect from an MRI exam too.

We can – and should – work to reduce pediatric sedation in MRI. In many cases, it's the right thing to do for our patients, for their families, and for our practices.



## Contact

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\*MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician must evaluate the benefit of the MRI examination in comparison to other imaging procedures.

## MRI Heroes Kit

In the USA we offer an MRI Heroes Kit to support pediatric imaging: Each MRI Heroes Kit includes an educational DVD; a mini-model of a Siemens MRI scanner; 100 copies of an educational Marvel Custom Solutions comic book featuring popular characters Captain America and Iron Man; 100 hero-themed capes; and 100 Captain America and Iron Man plush toys.

The educational video walks the patient through the process of an MRI exam via the experiences of a 10-year-old\* girl who recently received a scan, detailing what pediatric patients and their parents can expect from the procedure. The video can be shown to patients and their parents on the facility's website as well as in the waiting room to help the child prepare for the exam.

The mini-model of a Siemens MRI system can be positioned in the hospital's play area and used by hospital staff to further educate children on the imaging process.

The Marvel Custom Solutions comic book explains an MR exam via an action-packed, visually compelling story and can be read to children by their parents or read by the child during a hospital visit.

The plush toy, which the young patient can hold during the exam, provides a fun way for hospital staff to reference the comic book storyline and interact with the child. The hero cape can be given to the child as a reward for completing the scan.



Should you be interested in the MRI Heroes Kit, please contact your local Siemens representative.



WIP, the product is currently under development and is not for sale in the US and in other countries. Its future availability cannot be ensured.