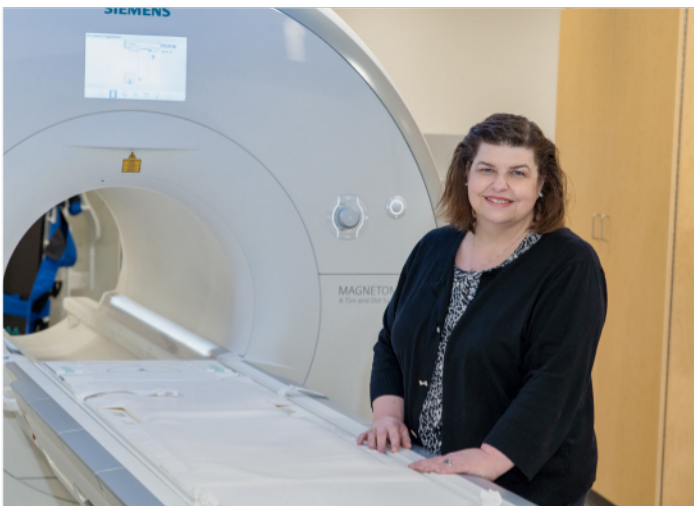


CELEBRATING MR SAFETY WEEK 2025

MR Safety Week, held annually in the last week of July, was established in memory of 6-year-old Michael Colombini, who tragically died in 2001 due to an MRI-related incident. Initially created to prevent such tragedies, the week now serves as a vital opportunity to refresh our safety education and address ongoing challenges in the MR environment. We spoke with **Stephanie Holowka, M.R.T.(R), M.R.T.(MR), MRSO (MRSC™)**, Senior MRT, Lead MRI Safety Officer at The Hospital for Sick Children (SickKids), to learn more about this role and MR Safety in general.



Tell us about your path to becoming an MR Safety Officer (MRSO), and some of your day-to-day duties

In November 2011, I became our department's MR Safety Officer (MRSO). The first three years were challenging because I was learning on the job. It became easier when the American Board of MR Safety started their MRSO courses. Dr. Emanuel Kanal's course on MR Safety changed how I analyze risks in MRI. I passed the registry exam for MR Safety Officer in October 2015.

The responsibility of this role is significant—it affects patients and their care. My duties include implant screening, assignment of MR Safety conditions in the electronic chart, MR Safety training, staff screening and controlling badge access into MR areas. I write, update, and maintain MR Safety policies and chair the MRI Safety Committee, along with my senior manager, at SickKids. I enjoy the challenges of this role because I collaborate with clinical teams, assess risk and ensure that patients are scanned safely.

What are the most common safety challenges you see in the MRI environment, and how do you address them proactively?

Managing access to the restricted MRI Zone III, the area immediately surrounding Zone IV MRI scanner room, is ongoing, especially since we have satellite departments on four different floors. Everyone must complete MR Safety training and MR screening prior to being given badge access into MR areas by the MR Safety Officer. Our protection services personnel email me regularly when people request access so that I can check the records of training and screening. I created a process to track training and screening of staff. Implant screening is also a large challenge. Patients can have multiple devices implanted, and one has to research the safest way to scan, if you can scan. Patient care providers will make assumptions about what can be safe to scan, but there can often be risk vs. benefit questions as well. Requestors may cite journal articles featuring retrospective evaluations of device scanning. Such articles must be reviewed entirely (i.e., type of exam, surface coils used, applied radiofrequency), not just by abstract, and then ultimately be assessed by the MR radiologists for consideration.

When it comes to MR safety, technologists need to remember that we know more than anyone else about MR Safety. One must remember that it will be the patient who bears the burden of risk.

Can you share an example of a safety incident (or near-miss) that taught your team an important lesson? What changes came from it?

The biggest near miss that is creating big changes for our department happened when the parent of a patient who was being scanned followed a service person into Zone III.

The MRI technologist, scanning the patient, turned around to find an unexpected person behind her. In response to this incident, we are undertaking a project to re-zone and reduce the size of Zone III in our primary MR department, which has been challenging as the department was designed and opened in the early 1990s. Our Senior Manager, Nicole Bennett, has been working diligently to ensure that this rezoning is done properly and safely...not easy in a department with many patients being scanned under anaesthesia and includes an MEG machine (magnetoencephalography).

How do you keep up with the latest MR safety guidelines, and what resources would you recommend to technologists and staff?

The American College of Radiologists updates its open-access Manual on MR safety every couple of years, with the most recent version finalized in 2024. For free access, there is [MRsafety.com](https://www.mrsafety.com) for looking up implant safety. Dr. Frank Shellock has great articles about various implants and devices. We subscribe to magresource.com, an incredible tool for checking implants, including links to the manufacturers' documents. I highly recommend the MR Safety Officer training offered by the American Board of MR Safety. Even if technologists are not looking to become safety officers, it will enhance their practice and comfort level when scanning patients with complex/active implants.

What's one MR safety misconception you wish more people understood—and how do you correct it during training or day-to-day interactions?

A common misconception is that the MRI machine magnet is turned off between patients, but the magnet is always on. The active shielding on the magnets can also be misleading because many factors affect the interaction of potential projectiles and the magnet. The magnetic force interaction can change significantly within a very short distance.

By the time one realizes that something is being pulled, it is gone against or into the magnet....and you do not want to be between either. Staff and patients who are not MR safety trained do not understand the need for strict enforcement of MR safety practices, such as screening and controlling access into the MR suites.

If you could implement one change tomorrow to improve MRI safety across all sites, what would it be and why?

Consistent implant documentation in surgical records. Now with ConnectingOntario and their electronic charting, surgical reports are more accessible in the province. The challenge is that unless the surgeon dictates specifically the implants used, the records may not show needed information on surgical implants. It would be helpful if implant records were accessible to patients via implant cards or an implant passport, which could be given to MRI technologists. At my site, operating room staff have been given lectures and educated about the importance of proper implant documentation. I think it would be wise to do this on a provincial and national scale as part of surgical training.



CAMRT provides resources on **MR Safety** like our [Best Practice Guideline](#) and courses on MR [here](#).