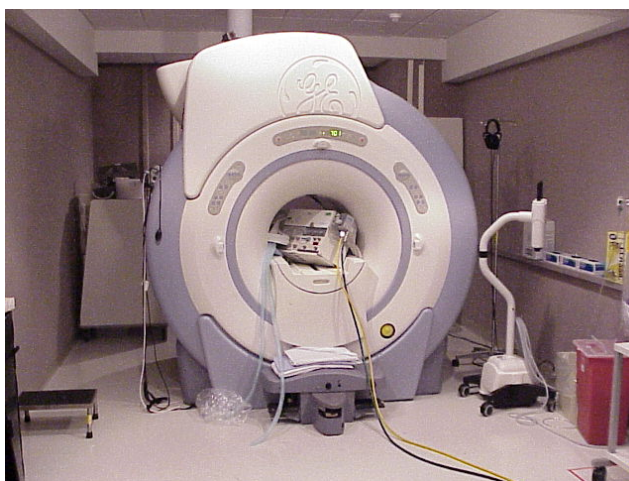


Changing technology, changing risk
Upgrading from 1.5 to 3.0 Tesla MRIs

An Oregon hospital just reported to the Patient Safety Commission that it had a close call (near miss) involving a 3.0 Tesla MRI. No one was harmed, but the reporting hospital believes that other hospitals could learn from its experience.



Why we are sharing this information: This close call was associated with the installation of new, more powerful 3.0 Tesla MRI equipment. More and more hospitals are upgrading from 1.5 to 3.0 T MRIs.

What happened: A ventilator was pulled into the core of a 3.0 Tesla MRI. The ventilator was being moved by staff as they readied the room for a patient (who was not present). Staff pushed the ventilator from the established safety area which was marked with tape on the floor. The ventilator was previously tested and rated as **“acceptable for use in the MRI environment.”**

Initial findings (based on work done by reporting hospital): The investigation of this close call is on-going, but the reporting hospital shared its initial insights:

- Test to ensure that all equipment is compatible with new 3.0 T MRI environment. Don't assume that equipment that worked in a 1.5 T environment is safe or will function properly in a 3.0 T environment. Risk margins change.
- Reconsider the physical design of the MRI environment to create barriers to inadvertent violation of safety space.

- Implement consistent training procedures for all staff entering MRI suites. Be sure to review training protocols after upgrading or changing equipment.

Additional Information:

MR Hazard Summary (August, 2001 UPDATE), the VA National Center for Patient Safety -- In this short overview, the VA identifies five types of MR hazards (including projectile effects, twisting, burns, image artifacts, and device malfunctions). The VA also states that “labeling on devices or in documentation can be confusing.” They specifically argue that phrases such as “MR Safe” and “MR compatible” *must be considered specific to a particular MR environment*. “The terms are not intended to be used without further specifying the particular MR environment where the devices have been tested and found safe for. *MR safe* and *MR compatible* may not be with more powerful MRIs.”

Contact us!

If your hospital has observations, lessons, or warning about the use of 3.0 Tesla MRIs, please call Leslie Ray at 503.224.9227. We want to encourage a discussion. In addition, we can connect you to other experts willing to analyze your particular situation. All information will be kept confidential.