

MRI

MRI and Your Medtronic Device

Along with CT scans, x-rays, and ultrasounds, MRIs (magnetic resonance imaging) are highly effective, advanced diagnostic tests. However, the use of MRI technology has not been considered safe for persons with pacemakers and implantable defibrillators. In this Question & Answer, Medtronic provides guidelines on the current use of MRI technology with Medtronic heart devices.

Is it harmful for me to have an MRI?

Medtronic does not consider MRI scans to be safe for patients with pacemakers and implantable defibrillators and does not recommend its use for these patients.

What could happen to my heart device during an MRI?

An MRI could change the settings and/or temporarily affect the normal operation of your heart device. It could also cause a life-threatening irregular heart rhythm and/or tissue damage due to heating of the lead wire(s).

For those who prefer a more technical response: The following types of electromagnetic fields produced by MRI equipment may affect the normal operation of your pacemaker and implantable defibrillator.

1. Alternating magnetic fields can introduce conducted current into the lead wire(s) and cause a potentially life-threatening arrhythmia.
2. Radio frequency energy emitted by the equipment can cause heating of the lead tip, potentially damaging tissue around the lead tip that could result in a loss of pacing.
3. Finally, the complex magnetic fields may be strong enough in some MRI machines to change the settings of your heart device to standard settings.

Can I have a partial extremity MRI?

Medtronic does not recommend the use of an MRI scan, even for a partial extremity.



Can I have an MRI if my heart device is programmed off?

Medtronic does not recommend the use of an MRI scan, even if your heart device is programmed off. The risks as previously described would not be minimized even if your heart device is programmed off.

Can I have an MRI if my heart device has been removed?

Medtronic does not recommend undergoing an MRI if the lead wire(s) are still implanted. Most risks are still present, including initiating an irregular heart rhythm and/or heating of the lead wire(s) that can cause tissue damage around the lead tip.

What if my doctor strongly recommends an MRI scan?

Please have your doctor contact Medtronic Technical Services for a detailed discussion.

If I had an MRI did this affect my heart device?

There is a possibility that the settings of your heart device may be changed as a result of an MRI. Your doctor can determine if this has occurred.

If you have specific questions regarding MRIs, please ask your doctor or nurse. Your doctor should discuss all potential risks with you. You can also call Medtronic Patient Services toll-free at 1 (800) 551-5544, x41835 (7:00 a.m. to 6:00 p.m., Monday – Friday, Central Time) with non-medical questions.