

Magnets

Have you recently purchased a new item for your home or received a gift that contains magnets? You may begin to question whether the item could possibly affect the function of your pacemaker or implantable defibrillator. You are not alone and that is why we consulted the engineers at Medtronic for information about magnets and your heart device.

Do magnets affect pacemakers and implantable defibrillators?

First, it may be helpful to review a known fact about magnets. Maybe you remember in science class learning that items that have electric and magnetic components have an “electromagnetic” energy field around them. Even though most electromagnetic fields in the home environment will rarely affect the function of a pacemaker or implantable defibrillator, it is recommended you keep any item containing magnets away (at least 6 inches/15 centimeters) from your pacemaker or implantable defibrillator.

The reason for this is because there is a small magnetically activated switch built into the electronics of pacemakers and

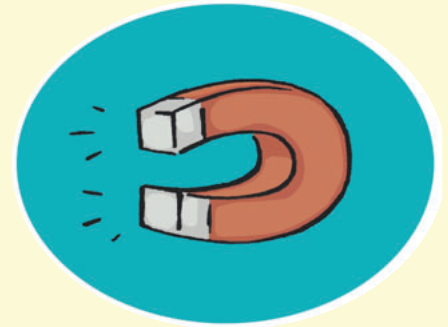
implantable defibrillators. This internal switch is designed to close when a magnet of enough strength is placed over it.

- When the internal switch is closed in the **pacemaker**, the pacemaker paces the heart at a continuous pre-set rate (which could be different than the rate your doctor programmed).
- When the internal switch is closed in an **implantable defibrillator**, it prevents it from delivering treatment therapies.

Removing the magnet returns the pacemaker or implantable defibrillator back to its previous, normal programming.

Aren't magnets used as part of a pacemaker and implantable defibrillator monitoring?

Yes, the programmer head contains a magnet and could be applied over your heart device as part of your device monitoring. Holding a magnet over a pacemaker or implantable defibrillator closes the internal switch so monitoring and testing can begin. For example, data stored in your heart device since the last clinic visit can then be retrieved for analysis, or the battery can be tested. The switch opens back up again when the magnet is removed without any permanent effect to your heart device.



Guidelines

What are the guidelines for using items with magnets around the home?

As a general rule, maintain a minimum distance of 6 inches (15 centimeters) between any household item with magnets and your heart device.*

By maintaining a 6 inch (15 centimeter) separation, you can use that new gift or household item even when you know it has magnets in it, including items such as:

- Decorative refrigerator magnets
- Large home stereo speakers
- Small gas engines
- Hand-held massagers or massage chair cushions
- Magnetic therapy products such as massagers, chair pads, bracelets, knee wraps, back supports, slippers, or shoe insoles

The use of magnetic mattress pads and pillows is not recommended since it would be difficult to keep a 6 inch (15 centimeter) separation from your heart device.

You may not always know if an item has a magnet in it. However, if you use household items as they are intended, and they are properly maintained, they should have no effect on your heart device. This includes microwaves, kitchen appliances, cordless phones, radios, televisions, video games, CD players, hair dryers, electric shavers, electric toothbrushes, electric blankets, leaf blowers, lawn mowers, garage door openers, computers, and small shop tools.

If you mistakenly place a magnet item too close to your heart device, simply move the item away. Your heart device will immediately return to its previous normal programming. There will be no damage or reprogramming effects to your heart device.

If you have specific questions regarding magnets, please ask your doctor or nurse. 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.

*An industrial work environment may require a further separation than 6 inches (15 centimeters).

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