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## Apple Warns That Magnets In Its Tech Products May Interfere With Implanted Medical Devices

by Shawn M. Schmitt

The company says popular products like iPhones, iPads, AirPods and MacBook laptops contain magnets that could adversely affect the function of implantables, including pacemakers and defibrillators.

<u>Apple Inc.</u> is warning people implanted with pacemakers and defibrillators that popular tech products like iPhones, iPads, AirPods and MacBook laptops contain magnets that could adversely affect the function of their medical devices.

"Under certain conditions, magnets and electromagnetic fields may interfere with medical devices," Apple <u>says</u> on its website. "For example, implanted pacemakers and defibrillators may contain sensors that respond to magnets and radios when in close contact."

The company also called out its Apple Watch, HomePod and Beats headphones products and accessories as being potentially problematic for people with implantables.

Apple recommends that users of its tech products keep them at least six inches away from implanted medical devices, and a foot or more away if the Apple product is being wirelessly charged.

"Consult with your doctor and the manufacturer of your device for specific guidelines," Apple said, adding: "If you suspect that your Apple product is interfering with your medical device, stop using your Apple product and consult your doctor and the manufacturer of your medical device."

The company's warning comes roughly a month after the US Food and Drug Administration said the magnetic fields of cell phones and smart watches may be strong enough to flip pacemakers and other implanted devices to "magnet mode," impeding their function. (Also see "*FDA Warns*:

## MEDTECH INSIGHT

*Implantable Devices May Flip To 'Magnet Mode' When Near Cell Phones, Smart Watches*" - Medtech Insight, 13 May, 2021.)

"Magnet mode" is designed into the devices so people can safely undergo medical procedures such as an MRI scan. The FDA said the risk is low, but nevertheless recommends that patients keep the phones and watches – and any other "consumer electronic devices that may create magnetic interference" – at least six inches away.

The FDA's May warning came after the agency became aware of articles written about the issue and performed its own testing.

Interestingly, the same underlying principle that may lead to interference – electromagnetic induction – is being used to develop wireless charging capabilities for implanted medical devices. (Also see "Start-Up Spotlight: Resonant Link Plans To Electrify Device Industry With Efficient Wireless Charging Technology" - Medtech Insight, 10 Jun, 2021.)