

iPhone 12, MagSafe and Cochlear Implants

A warning has been published on Apple's website (<https://support.apple.com/en-us/HT211900>) stating that the magnets and electromagnetic fields of some of their devices may interfere with medical devices such as pacemakers.

Although they do not mention cochlear implants directly, it is important that we consider the implication of Apple's warning for our customers and candidates. The nature of the interferences are not detailed by Apple, but are said to be related to the new magnets used in their latest mobile phone model, the iPhone 12 family, released in October 2020 and their MagSafe* wireless charger and accessories.

What has Apple communicated about the risk of interference?

- The iPhone 12 and MagSafe accessories could interfere with implanted medical devices.
- Keep those items at least six inches (12 when charging) away from a pacemaker or defibrillator.
- Though all iPhone 12 models contain more magnets than **prior** iPhone models, they're not expected to pose a greater risk of magnetic interference to medical devices than prior iPhone models.

What are the Apple devices concerned by the risk of interference?

- iPhone 12
- iPhone 12 mini
- iPhone 12 Pro
- iPhone 12 Pro Max
- MagSafe accessories

About MagSafe

MagSafe pertains to magnet-based accessories designed for iPhones. All of the **iPhone 12 models** have a ring of magnets built into the back around the wireless charging coil that are compatible with MagSafe based accessories like cases and chargers.



MagSafe based accessory: Wireless charger

MagSafe wireless charger in contact with the latest iPhone 12.

Recommendations

Medical devices such as cochlear implants contain sensors that respond to magnets and radios when in close contact. Tests are currently on going to fully assess the risks associated with the use of iPhone 12 when wearing Oticon Medical CI implants and we'll inform patients and professionals as soon as we have more information.

Apple's recommendation for patients with medical implant devices is to **avoid any potential interactions with these devices, keep the iPhone and MagSafe accessories a safe distance away from the Cochlear Implant by more than 6 inches / 15 cm apart or more than 12 inches / 30 cm apart if wirelessly charging.**

1. **Consult their physician**
2. **Report the issue to the audiologist as well as the manufacturer**

IMPORTANT:

- Neither Apple nor we have yet conducted any specific tests of the iPhone 12 in proximity of a CI
- There is unlikely to be any difference between Cis – what applies to us also will apply to our competitors
- So far to our knowledge no complaints from CI users – either OM's or the competitions – have been reported with Apple's iPhone 12 products

Our Recommendation

Your response to any enquiries should be based on the information above, and the recommendation from Apple that if a CI user suspects an iPhone or any MagSafe accessories are interfering with their medical device, they should stop using the iPhone or MagSafe accessories. Reassure them that this is not specific to their implant – but general for all medical devices containing magnets and that we are conducting tests to learn more about any potential risks. We have no knowledge of any tests that could potentially be being conducted by Apple.

If you have any further questions or hear any more about this issue from your customers, please contact....