

Potential for Interference to Electronics



The digital technology used by modern mobile phone services supports more users, a greater range of services and improved privacy for conversations. However, the on-off nature of digital signals may cause interference to some electronic devices. The potential for interference decreases rapidly as the distance between the mobile phone and the electronic devices increases.

Mobile phone use and hearing aids

Most new models of hearing aids are immune to interference from GSM phones that are more than 2m away. Some are also immune when the phone is brought up to the same ear as the hearing aid. The result depends on the level of immunity designed into the hearing aid, the nature of the hearing loss and the type of mobile phone. Should interference be experienced, there are several things that can be done which may improve the situation:¹

- If possible use the mobile phone at the non-aided ear;
- Use a different, more immune hearing aid;
- Use a hands-free accessory (either microphone or T-Coil mode).

Mobile phone use and pacemakers

Different brands and models of cardiac pacemakers exhibit a wide range of immunity levels to GSM and other types of radio signals. Therefore, people who wear cardiac pacemakers and who want to use a GSM phone should seek the advice of their cardiologist. We are unaware of any evidence of interference from the low-level radio signals of base stations. If, as a pacemaker user, you are still concerned about interaction with mobile phones, it has been suggested by national health authorities² that you:

- Maintain a 15cm (6 inch) separation between the phone and your pacemaker;
- Do not hold your phone to your chest, e.g., don't carry the phone in a breast pocket;
- Refer to your pacemaker and phone product literature for specific information.



Mobile phone use and medical electronics

At short range, the radio signal from a mobile phone or other radio transmitters may cause interference with electronic medical devices. At distances greater than 1 to 2m the possibility is substantially reduced for GSM phones. Although mobile phones may be used in designated areas of hospitals, you should, however, obey any warning signs and the instructions of hospital staff. If you use electrical medical equipment in your home, we recommend that you seek the advice of your doctor or equipment supplier.

Mobile phone use and car electronics

Tests conducted by a number of vehicle manufacturers show no interference effects on airbags, automatic braking or cruise control systems during normal phone use, despite some media reports to the contrary. It is possible that a mobile phone could cause an interference with vehicle audio and remote locking systems, but only if held close to these devices. You should remember that care needs to be taken - and in some countries it is against the law - to use a hand-held mobile whilst driving a vehicle. A professionally installed hands-free kit is recommended.

It is also recommended that you pull over if the call is likely to be long, stressful or complex. Safe driving should be the highest priority.

Mobile phone use and petrol stations

As far as the GSMA is aware, none of the media stories claiming that mobile phones have caused fires at petrol stations has ever been traced to a real event. However, the notices produced by petroleum companies have encouraged speculation. Mobile phone user guides also frequently advise that phones should be switched off in the vicinity of petrol forecourts. This is due to the theoretical risk that if a handheld phone is dropped and the battery separates from the phone it may cause a spark across the contacts. This is also true of other battery-powered devices such as torches, portable CD players, etc. The GSMA position is that mobile phone users should respect the prohibitions of the fuel companies, and follow any relevant advice given in their mobile phone user guides.



Where to go for more information

GSMA: <http://www.gsmworld.com/health>