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Deafness Forum

www.deafnessforum.org.au

**Australian Communications and
Media Authority (ACMA)**

www.acma.gov.au

**Human Rights and Equal Opportunity
Commission (HREOC)**

www.hreoc.gov.au/disability_rights

**Australian Mobile Telecommunications
Association (AMTA)**

www.amta.org.au

Contacts for mobile carriers and
handset manufacturers are available
at the AMTA website

www.amta.org.au

National Acoustic Laboratories

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**Hearing aids and
mobile phones**



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Introduction

Mobile phones provide a convenient means of communication. To ensure the best possible performance, there are some things that you need to know regarding the compatibility of your hearing aid with mobile phones.

Mobile phones

Mobile phones in Australia use digital technology and send out radio signals. There are several different types of systems even though many mobiles may look similar. GSM and CDMA mobile phones have been in use for many years. Recently the 3G (Third Generation) system has been introduced and will replace the CDMA service.

Hearing aids

Hearing aids have sensitive electronics and some are adversely affected by certain radio signals. Generally GSM phones cause more interference than either 3G phones, or CDMA phones.

Hearing aids and mobile phones

A hearing aid user can listen to a mobile phone conversation with the hearing aid on microphone setting. With some combinations of mobiles and hearing aids it is also possible to use hearing aid telecoil (T-switch) setting. This has the advantage of reducing the loudness of sounds around the hearing aid user making it easier to understand voices on the mobile phone. If the surrounding sounds are too noisy then an accessory may be required.

For a hearing aid user who can successfully use a GSM mobile phone there is no need to upgrade to a 3G mobile phone unless you require some of the added 3G features.

Accessories

If your mobile phone interferes with your hearing aid then it will be necessary to create some distance between the hearing aid and mobile phone by using an inductive neck loop (eg Nokia LPS-1), or T-Link and using the hearing aid telecoil setting. These solutions allow the benefit of using both ears. Some people prefer using a hands-free kit, but the earphone must be positioned close to the hearing aid.

A wireless headset, which uses Bluetooth technology, has also been reported to be successful when used with the hearing aid in T-switch position.

Whistling and volume control

When using any telephone, if a "feedback" whistling sound occurs, increase the telephone volume to maximum and move the handset a little further from the hearing aid, or reduce the hearing aid volume control, to compensate for the additional sound level.

Angling the handset slightly upwards may also help reduce the "feedback" whistling sound.

Bystander interference

The reception of unwanted interfering sounds from a mobile phone being used nearby is called bystander interference. Should this become a problem then the hearing aid user needs to create a little more distance between their hearing aid and the mobile phone causing the interference. One solution is for the hearing aid user to move a little further away from the bystander mobile phone user. Another is to ask the bystander to either move a little further away, or to complete their mobile phone call.

Tips on purchasing a hearing aid

- Try before you buy: You should test any new hearing aid with your current mobile phone for unwanted interference.

Tips on purchasing a mobile phone

- Most hearing aid users who can successfully use a normal fixed line phone or CDMA mobile phone will be able to successfully use a 3G mobile phone without the need for an accessory in most situations.
- Try before you buy: You should test any new mobile phone with your current hearing aid for unwanted interference before finalising your mobile phone purchase.
- Hearing aids are more prone to unwanted interference in weak reception areas that are indicated by one or two bars on the field strength display of the mobile phone.
- If interference is annoying, then an accessory kit, such as an inductive neck loop, T-Link, hands-free kit or wireless headset may be required to create some distance between the hearing aid and mobile phone.
- While using a dual mode handset the hearing aid user may experience a significant increase in audible interference if the handset automatically switches to GSM.