

What is a hearing aid?

A hearing aid is a small, programmable amplifying device that is worn either in the ear or behind the ear. Hearing aids can help most people with a hearing loss, even though they cannot restore normal hearing. Hearing aids aim to increase communication by providing more useful sound information.

How do they work?

All hearing aids have:

- a microphone to pick up sounds from the environment;
- an amplifier to make these sounds louder (adjusted to the hearing loss);
- a receiver that is like a miniature loudspeaker and sends the amplified sounds to the ear;
- a battery that powers the electronic components.

Hearing aids are programmed to suit the individual's hearing loss by connecting them to a computer. A hearing aid can be adjusted (re-programmed) at any stage if required. Fitting a hearing aid correctly is a delicate process that requires training, and is done by an audiologist or audiometrist.

Hearing aids – getting used to them

The human brain is quite plastic and is able to learn and re-learn how to process new and different signals over time. As hearing aids amplify those sounds you have been previously unable to hear well (often for at least several years), it usually takes some time to adjust to the way things sound with the hearing aid. The brain needs to relearn how to process the sounds provided by the hearing aids. By attending the hearing aid clinic for follow-up appointments after you obtain your hearing aid, you will be able to discuss your experiences with the Audiologist. As a result of these discussions, minor adjustments are often made to the hearing aid settings during those first few weeks or months. It is important to wear your hearing aids for the amount of time suggested by the Audiologist, as it helps the brain get used to the new sounds.



Types of hearing aids

A variety of hearing aid styles are available, including the styles below. Some types will suit certain types/degrees of hearing loss better than others.



Source: <http://www.donaldsonshearingcare.co.uk/>

- 1. Receiver in the canal:** Hearing aid worn behind the ear, with some of the electronic components in the ear mould which sits in the ear canal.
- 2. Behind-the-ear:** Hearing aid worn behind the ear, with an ear mould which sits in the ear canal.
- 3. In-the-canal:** Smaller hearing aid in a custom plastic shell sitting in the ear canal.
- 4. Completely-in-the-canal:** Very small hearing aid in a custom plastic shell, sits entirely in the ear canal.

Special features of hearing aids

Most hearing aids have special features that assist the user in specific ways. For example:

- Multi-memory (multi-program) hearing aids:** These hearing aids have a certain number of programs or settings and by pushing a button or switch the user can change programs to suit their listening situation. For instance, a different amount of amplification is often preferred when listening in noisy environments compared to quiet environments. Alternate programs can also be stored for listening to music or for use with telephones for example.



- **Automatic hearing aids:** The hearing aid automatically adjusts the amount of amplification depending on the listening situation the user is in. This may be a volume adjustment or a program change, depending on the situation. Some automatic hearing aids have a volume control to enable the user to further adjust the level to suit, others do not.
- **Remote control:** For use with some programmable hearing aids, a remote control enables the user to change the hearing aid settings without touching the hearing aid. The buttons on the remote control are generally bigger and easier to use than those on the hearing aid.
- **Telecoil (t-Switch):** This is available on many hearing aids, although not in very small hearing aids. The telecoil is used to pick up certain electromagnetic signals, such as those transmitted through a loop system or in many telephones. Loop systems have been installed in many halls, theatres, railway stations and cinemas. An advantage in using the telecoil is that unwanted background noise is not amplified.

Noise reduction features

Understanding speech in noisy situations can pose a problem for hearing aid users. Several features have been developed to improve this difficulty:

- **Directional microphone:** Most hearing aids have a directional microphone to pick up sounds from the front of the hearing aid user more than from other directions. This can be an effective means of hearing speech better in a noisy situation, at a close distance. Some hearing aids now also have the ability to 'track' a speech source coming from a direction other than the front.
- **Digital noise reduction:** All hearing aids use digital signal processing to provide noise reduction, and comfort in noise. The aim is to reduce the annoyance of background noise without adversely affecting the clarity of speech. These are most successful when the noise is quite different to the voice, e.g. when the noise is traffic, machinery or general 'babble' of groups of people at a distance.

How to obtain hearing aids

People who are not eligible for the government hearing services voucher scheme, administered by the Office of Hearing Services (OHS), will have to fund the purchase of their own hearing aids. Some private health insurance extras include hearing aids depending on individual policies. The information sheet titled 'Office of Hearing Service Voucher System' describes eligibility and access to OHS. Medicare does not cover hearing aids.



Where do I obtain hearing aids?

Audiologists have university training in the measurement and rehabilitation of hearing loss, and they fit hearing aids in a variety of settings. Hearing aids vary in cost, depending on their style and their special features. Your Audiologist will discuss these features with you and help you to decide on the features that are likely to be of most benefit to you.

Audiology Society of Australia

For a directory of services, contact the Audiology Society of Australia.

Phone: 03 9416 4606

Website: www.audiology.asn.au

Expression Audiology

Not for profit organization Expression Audiology provide discounted hearing aids for approved low-income earners, and for holders of a Health Care Card or Seniors card.

Phone: 1300 302 031

Website: www.expression.com.au

JobAccess

JobAccess is a government service that aims to provide solutions for people in the workplace with a disability. You may be eligible for financial support if you require certain devices to help you in your workplace (JobAccess does not fund hearing aids).

Phone: 1800 464 800

Website: <http://jobaccess.gov.au>

Better Hearing Australia

Better Hearing Australia runs a Community Assistance Scheme which enables some people who have low income and are not eligible for Government Assistance to be fitted with a reconditioned hearing aid from the Hearing Aid Bank.

Phone: 1300 242 842

Website: www.betterhearing.org.au

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Hearing aids #72 | Owner: Audiology | Last published: 27/09/17 | Next review: 27/09/19

