

Hearing Devices

There are different types of hearing aids and devices. Your child's audiologist will explain your options and find the best device based on their type of hearing loss and needs. Before reading this information sheet we recommend that you familiarise yourself with our information sheets on **how the ear works** and **types of hearing loss.**

Do I have to pay for a hearing device?

If you are eligible for the Australian Government Hearing Services Program your child's hearing services will be covered up until the age of 26.

What are the different types of hearing aids?

Hearing aids come in a range of sizes, shapes and styles.

Types of hearing aid

Behind-the-ear (BTE)

The hearing aid sits behind your ear. Typically, the hearing aid is attached to a tube that connects to an ear mould. The microphone is on the top. Sound travels from the hearing aid through the tube and mould and into your ear canal. Those with a profound hearing loss they may use a high-powered BTE hearing aid. They usually require a larger battery and the hearing aids are bigger. Open BTE hearing aids are not connected to a mould. The tube is very thin and directs sound from the hearing aid into the ear canal. This type of hearing aid is for people who have good hearing for low pitch sounds, or who cannot wear an ear mould.



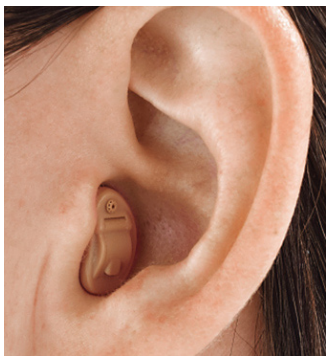




In-the-canal (ITC) and in-the-ear (ITE)

With these hearing aids instead of sitting behind the ear they sit inside. They sit in the bowl of the outer ear and a part sits out to direct sound into the ear. In the ear, hearing aids are bigger and more powerful that in the canal hearing aids.

These types of hearing aids aren't for everyone especially for people who experience ear infections.





Completely in the canal (CIC)

These hearing aids sit deep in the ear and are quiet small. Due to being small they are less powerful, have less features and not suitable for all hearing types or those that have chronic ear infections.

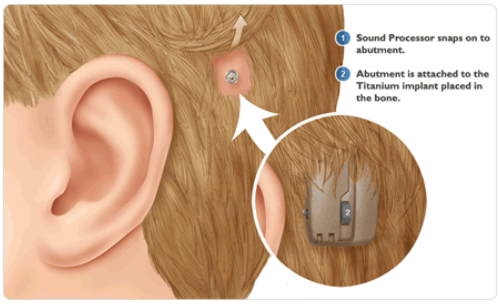




Othe Types of Hearing Devices

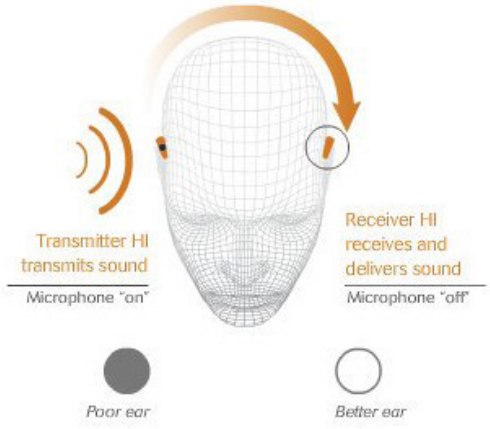
Bone conduction hearing aids

For those with problems in their outer or middle ears (for example chronic ear infections) they may use a bone conducted hearing aid as this type of hearing aid does not require a mould. This hearing aid works by transferring sound by bone vibration directly to the cochlea. Due to the way this hearing aid works, it is good for those with a working cochlea but have conductive or mixed hearing loss. There are two types; one involves surgery to inset a fixture behind the ear. The other type does not require surgery, the hearing aid sits just above the ear. For those who wear glasses you can also use spectacle aids. This is when the bone conduction hearing aid sits on your glasses.



Contralateral Routing of Signals

This type of hearing aid is used for those with unilateral hearing loss, hearing loss in one ear and normal hearing in the other. The sound from the ear with poor hearing is transmitted to the ear with better hearing. Bilateral contralateral routing of signal (BiCROS) uses the same system and is used with both ears have hearing loss but one ear has substantially better hearing that the other ear.



Body worn hearing aids

With body worn hearing aids, the earpiece sits in the ear and connects to a box shaped device via a cord. The device is large as it requires AA or AAA batteries to power the strong amplification.
The microphone sits on the device and must be placed in a location where the sound can be captured.
These types of hearing aids are powerful and useful for severe to profound hearing loss due to the powerful amplification.
With behind the ear hearing aids becoming more powerful as technology developed these types of hearing aids are used less frequently.



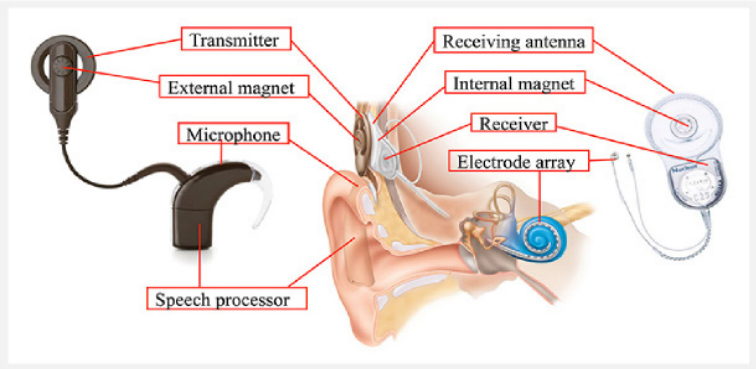
Cochlear implants

A cochlear implant is an electronic medical device that replaces the function of the damaged inner ear. Unlike hearing aids, which make sounds louder, cochlear implants do the work of damaged parts of the inner ear (cochlea) to provide sound signals to the brain.

People with severe to profound sensorineural hearing loss may benefit from a cochlear implant. The cochlear implant bypasses the acoustic hearing proves by using an electric system.

Instead of sound waves signalling the auditory nerve that sends the sound to the brain, an electric signal stimulates the auditory nerve to send the signal to the brain. Over time the brain adjust to the change from the sound to electric signalling and can then interpret the electric signals as noise and speech.

Your audiologist can discuss the options of choosing a cochlear implant with you.
A cochlear implant consists of two parts. The first part is the sound processor, which sits behind the ear, and connects to a coil. The sound processor is where you will find the microphone and where to change the battery. This coil which transmits a signal over the skin to the inside part of the implant. The implant, which is inside the inner ear, has a coil to receive the signal and to stimulate the auditory nerve.





Websites:

https://www.childrens.health.qld.gov.au/qhlfss-miplabinna-hearing-aids/
https://www.hearingdirect.com/au/pages/hearing-aid-types.html

For further information about Deaf Children Australia.

www.deafchildrenaustralia.org.au
03 9539 5300
info@deafchildren.org.au
www.facebook.com/DeafChildrenAustralia

Deaf Children Australia uses the term 'deaf' to refer to all degrees and types of hearing loss.
Revised 2019 – Copyright © Deaf Children Australia 2019