

Adult Cochlear Implant Program

Patient information sheet

About the Flinders Medical Centre cochlear implant program

The Flinders Medical Centre is a large public hospital, located only 12km from the Adelaide city centre. The only public, adult cochlear implant program in South Australia is based at FMC. It is here, in 1985, that the first cochlear implantation in South Australia took place. Many adults in South Australia have since benefited from receiving a cochlear implant.

What is a cochlear implant?

A cochlear implant is a surgically implanted hearing device that replaces the function of the damaged inner ear hair cells. It is placed inside the cochlea (inner ear) and directly stimulates the hearing nerve. The cochlear implant has both external and internal parts.

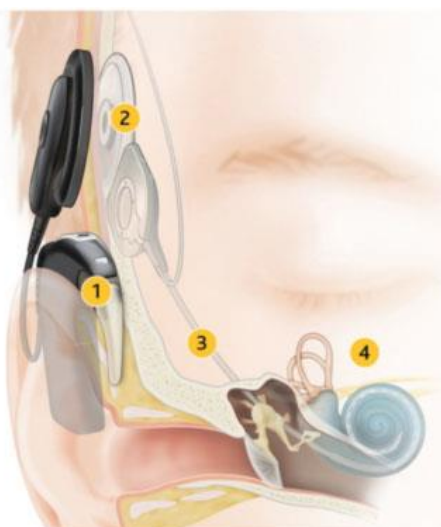
External parts

The speech processor is worn at ear level and looks similar to a hearing aid. This connects to the transmitting coil.

Internal parts

At the time of surgery, the cochlear implant package is placed under the skin, behind the ear, with the electrode array inserted into the cochlea.

The different parts are shown in this diagram:



© Cochlear

Hearing with a cochlear implant

The following descriptions correspond with the numbers in the diagram.

1. The external sound processor is worn **behind** the ear. It captures sound, then filters and processes the sounds, turning it into digital code.
2. The sound processor transmits the digitally coded sound through the coil on the outside of the head to the implant.
3. The internal implant converts the digitally coded sound into electrical impulses and sends them along the electrode array that sits gently in the cochlea (the inner ear).
4. The implant's electrodes stimulate the cochlea's hearing nerve, bypassing the damaged cells that cause hearing loss, sending impulses to the brain where they are interpreted as sound.

Who might benefit from a cochlear implant?

The cochlear implant is only appropriate for people who have at least a moderate to profound sensorineural (inner ear) hearing loss for most frequencies AND receive limited or no benefit from conventional hearing aids.

Before we can offer advice on the suitability of a cochlear implant, the following need to be considered:

- You must be 18 years of age or older at the time of surgery (paediatric cochlear implantation is done at the Women's & Children's Hospital)
- You must have good verbal communication skills
- Your ears must be free of infection
- Your cochlea must be adequately formed and your auditory nerve must be intact
- You must be medically suitable to undergo an operation
- You must be motivated to use the device
- You and your family must have realistic expectations of the risks, benefits and limitations of the cochlear implant.

Our Team

As a potential implant candidate, it is important to realise that the decision to proceed with a cochlear implant is a two-way process. Whilst the cochlear implant team conducts assessments, including audiological assessments, psychology pre-surgical support/assessment, and medical examinations by an Ear, Nose and Throat surgeon, you must also decide whether a cochlear implant is right for you.

How to refer to our program

We accept all referrals for potential candidates. This includes referrals from Audiologists, General Practitioners and Ear, Nose and Throat specialists. You can also refer yourself. Please direct your referrals to:

Cochlear Implant Clinic
Department of Speech Pathology and Audiology
Flinders Medical Centre
Level 6
Flinders Drive, Bedford Park, SA 5042
Phone: (08) 8204 4113
Fax: (08) 8204 8941
National Relay Service: 133 677
Mobile (SMS only): 0434 606 802
Email: HealthFMCAudiology@sa.gov.au

We encourage you to contact us should you have any further questions about our program.

For more information

Department of Speech Pathology & Audiology
Flinders Medical Centre, level 6
Flinders Drive
Bedford Park SA 5042
Telephone: 08 8204 4113
Email: HealthFMCAudiology@sa.gov.au
www.sahealth.sa.gov.au/SALHN



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