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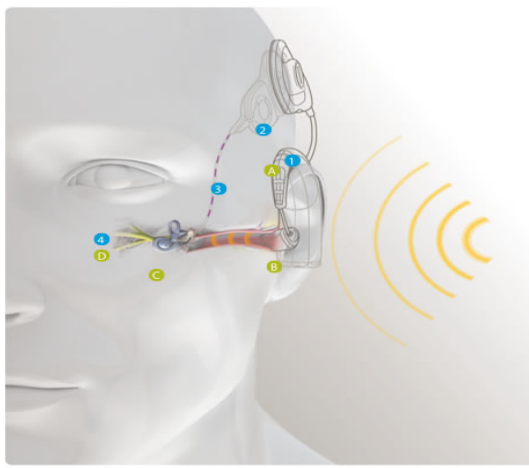
What is an Electric Acoustic Stimulation (EAS) or Hybrid cochlear implant and when to consider it?

You may think that a cochlear implant is only for people with profound hearing loss. What you may not know is that there is a specific cochlear implant designed for people who have partial deafness.

Partial deafness is characterized by reasonable hearing in the low frequency sounds and a severe to profound hearing impairment in the high frequencies. These patients usually wear hearing aids but eventually they do not achieve much benefit.

The EAS or hybrid system combines the electric cochlear implant stimulation and the hearing aid technology into one device.

The implant stimulates the nerve through the electrodes to compensate for the high frequency hearing loss, and the acoustic component



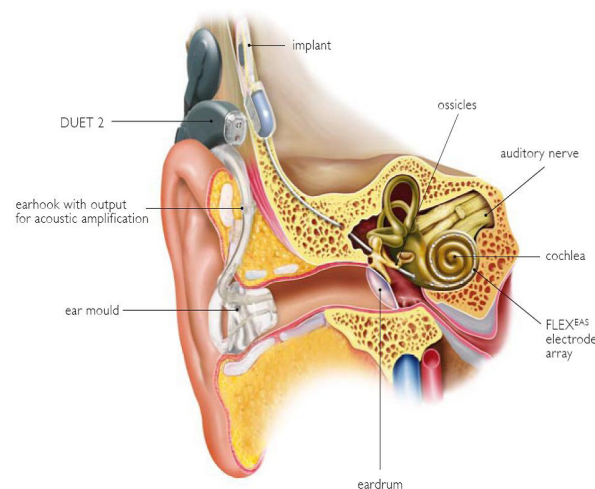
Courtesy of Cochlear Pty Ltd



Courtesy of Med-El

How an EAS or hybrid works?

A sound processor (1) captures the sound and turns it into digital code, that is then sent to the implant (2). The implant then sends electrical impulses to electrodes in the inner ear. The acoustic component (B) amplifies the low frequency sounds and sends it through the eardrum to the inner ear.

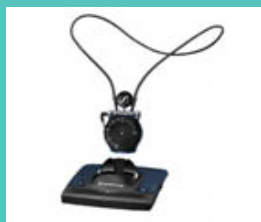


Courtesy of Med-El

Assistive Listening Devices: other options to help you hear

There are several products developed to assist people who are hard of hearing and who wear hearing aids or cochlear implants. These include amplified smoke, baby cry and visitor alarms; alarm clocks and amplified telephones.

There are personal amplifiers that can assist you to enhance your hearing even if you do not want to wear hearing aids. Hearing the TV can be a more pleasant experience for you and your family who do not need to have the TV too loud. See the following examples:



FM systems are designed to improve speech understanding in even more demanding listening situations when hearing aids are not enough.

These systems aim to decrease the distance between you and the speaker and to decrease the background noise. It consists of a transmitter used by the speaker and a receiver used by you (with or without a hearing aid).



Our aim is to offer our patients the full range of hearing solutions including cochlear implants, bone conduction implants, communication strategies, assistive listening devices, hearing aids, and other implantable devices.

For the last 25 years, Medical Audiology Services has worked closely with Ear Nose and Throat Specialists to ensure our patients receive the best hearing health care. We use the latest in technology to provide a comprehensive range of hearing and balance diagnoses, hearing re-habilitation and tinnitus treatment.

Our audiologists maintain their professional development to the highest standard. We have a research commitment that compliments our clinical work. As a consequence our patients receive the most current management for hearing impairment and related issues.

We also recognize that time matters, consequently we strive to keep our waiting times for appointments to a minimum.

Research Activities:

Along with research projects on Baha and tinnitus treatment, **Medical Audiology Services** is proud of being part of a cutting-edge research on cochlear implantation in patients with unilateral deafness and tinnitus.

This study commenced in 2008 and is running in collaboration with Fremantle Hospital and the Otolaryngology, Head & Neck Unit, University of Western Australia.

To date, 11 patients have been implanted, and the results are very positive. This is an ongoing study, and if you or somebody you know is interested in knowing more about it, please contact our reception staff on **9321 7746**.

Following our research commitment, our audiologists were involved in several publications during the last year:

- 1) Book chapter on tinnitus treatment by Távora-Vieira, D., & Davis, P.B.
 - 2) 1 article in the Int Journal of Audiology by Távora-Vieira, D., Eikelboom, R.H., Ivey, G.E. & Miller, S.
 - 3) 1 article in the Int Tinnitus Journal by Távora-Vieira, D., Eikelboom, R. & Miller, S.
 - 4) Rodrigues, S., Távora-Vieira, D. & Miller, S. (2011) Outcomes and Benefits of the BAHA System.
 - 5) McNeill, C., Távora-Vieira, D., & Alnafjan, F. (2011) Tinnitus pitch match as a prognosis of the masking effects of hearing aids on tinnitus perception.
 - 6) 5 presentations in National and International conferences on cochlear implants, BAHA and tinnitus treatment
- To view a complete list visit www.medicalaudiology.com.au

Services provided by Medical Audiology: Adult and paediatric hearing assessments; cochlear implant and Baha; Balance assessment; hearing aids, tinnitus management; protective earplugs; pre/post employment; assistive listening devices.

MAS aims to distribute an informative newsletter tri-annually. If you would like to receive information on a specific topic, email or call us.

If you know anyone who might enjoy our newsletter or if you would like to be removed from our mailing list, please let us know. **Phone 9321 7746 or email reception@medicalaudiology.com.au**