

Bilateral implantation

Hearing in stereo

To experience everyday sounds in stereo, we need to be able to hear with both ears. For cochlear implant candidates and recipients, bilateral implantation (cochlear implants in both ears) is the ideal solution to provide a more natural and complete hearing experience.

This fact sheet outlines the benefits of bilateral cochlear implantation.

THE BILATERAL DIFFERENCE

When only one ear is functioning correctly, hearing the sounds around you can be challenging. This is because your head acts as a barrier to sound coming from different directions. Bilateral cochlear implants help to provide hearing in 360 degrees – the way nature intended.



UNILATERAL HEARING

When sound is heard by only one ear, the brain finds it hard to process the distance and direction of the sound. This makes it difficult to locate the source of many sounds, or focus on a single voice in a crowd.



BILATERAL HEARING

The ability to hear sound with both ears gives the effect of dimensional hearing. It enables you to pick out soft or distant speech, separate a single voice from background noise and determine which direction sound is coming from.

THE BENEFITS OF BILATERAL IMPLANTATION

More connected

Hearing with both ears can improve speech understanding in noisy settings, such as at work, in the classroom or in a busy restaurant. Bilateral recipients also comment that volume and tone sounds better with two implants compared with one.

More confident

The ability to hear with both ears allows us to more accurately perceive where sounds are coming from. This makes us feel more and to feel more confident and safer in everyday situations like crossing the street.

More balanced and relaxed

Bilateral implants can bring a more balanced perception of sound making it easier to hear everyday sounds, including music, without the constant strain associated with a hearing loss.

Peace of mind

Knowing that your child can hear clearly at school, provides you with greater peace of mind. Studies show that children who only hear with one ear are ten times more likely to fail a grade than their bilaterally hearing peers. They're also twice as likely to develop behavioural issues in the classroom.¹

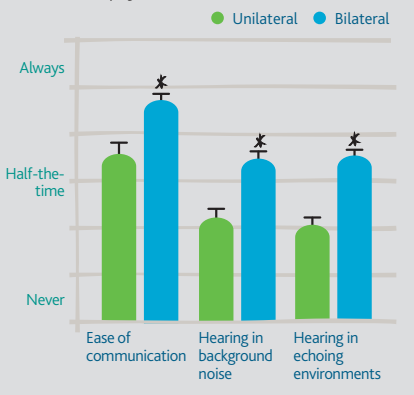
Children with bilateral cochlear implants listen more easily, become less fatigued and can absorb speech and language skills more readily.

CLINICAL RESULTS SHOW THAT BILATERAL IMPLANTS MAKE HEARING EASIER²

In a recent US clinical study, a group of bilateral recipients were asked to compare hearing with one ear versus hearing with both ears, answering a series of questions about their listening experience.

Results showed that bilateral implants helped recipients to:

- Communicate more easily
- Hear more clearly when background noise was present
- Hear more clearly in echoing environments, such as in a church or an empty hall.



EARLY IMPLANTATION AND FUTURE TECHNOLOGY

Stimulation of the second ear helps to build the critical neural pathways in the brain that are required for hearing. If the ear is not stimulated by either a hearing aid or cochlear implant, these critical pathways can not develop and this may impact on a recipient's ability to access future technology.

The application of future hearing technology is unknown and the expected timing is long term. In the meantime, implant design and surgical techniques are intended to leave hair cells intact so recipients can access future technology if it becomes available.

COCHLEAR™ – THE NUMBER ONE CHOICE FOR BILATERAL HEARING IMPLANTS

Because Cochlear designs all Nucleus® implant systems with bilateral hearing in mind, there are many benefits to choosing Cochlear for your or your child's second ear.

These include:

- Cochlear's advanced programming software, Custom Sound™ Suite, which allows audiologists to adjust both implants and sound processors to function in harmony.
- Ease of use. With the same processor on both ears, you only need to master one operating system.

- Bilateral control. The Cochlear Nucleus 5 remote assistant allows you to simultaneously control both sound processors with the touch of a button. This function is not available if you have a different brand of cochlear implant in each ear.
- Lower operating costs. With the same sound processor on both ears, you can save money on spare cables and only need to maintain one set of accessories.
- Accessories for bilateral hearing such as the Nucleus 5 bilateral audio cable, which has been designed specifically for listening to music with both ears.
- As the world leader in cochlear implant systems, Cochlear continually makes the industry's largest investment in research and development to ensure our recipients have access to the latest technology for an improved hearing experience.

A SUMMARY OF THE BENEFITS OF BILATERAL IMPLANTATION WITH COCHLEAR

- The ability to more accurately perceive where sounds are coming from.
- Improved speech understanding and communication in noisy settings.
- A more balanced perception of sound
- Improved overall quality of sound including volume and tone
- Advanced programming software and accessories designed specifically for bilateral implants.
- Bilateral control at the touch of a button with the Nucleus 5 Remote Assistant.



LIKE TO KNOW MORE?

If you're interested in learning more about bilateral implantation, please visit www.cochlear.com/ap/bilateral where you'll be able to listen to recipients talk about their experiences, as well as make contact with recipients or parents of bilaterally implanted children through our Cochlear Awareness Network (CAN).

For further information on bilateral implantation, please contact your clinic.

1. B.R.Peters, M.D. Rationale for Bilateral Cochlear Implantation in Children and Adults. Cochlear White Paper Oct 07.
2. Litovsky, RY. et.al., Simultaneous Bilateral Cochlear Implantation in Adults: A Multicenter Clinical Study. Ear Hear, 27[6], 714-731. 2006.

Hear now. And always

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