

What is a **COCHLEAR IMPLANT?**



What is a cochlear implant?

A cochlear implant is an electronic device designed to restore hearing for children and adults with significant hearing loss.

A cochlear implant has external components, a sound processor and a headpiece, which can be taken off and put on easily. The internal parts, which include the implant and the electrode array, are implanted during surgery.

A cochlear implant works by bypassing the damaged or missing hair cells in the cochlea and stimulating the hearing nerve directly.







- 1. Sound processor
- 2. Back & front microphones
- 3. Additional microphone
- 4. Magnetic headpiece
- 5. Implant
- 6. Electrode array
- 7. Cochlea
- 8. Hearing nerve

How does a cochlear implant work?

Cochlear implants help people with severe or profound hearing loss hear again or for the first time.



The external components capture speech and music, as well as environmental sounds.

The headpiece transmits the processed sound across the skin to the implant. The implant then passes the signals along to the electrode array.





The individual electrodes then deliver these signals to the hearing nerve where they travel to the brain and are perceived as sounds.

The entire process, from capturing sound to processing it in the brain, occurs so rapidly that the person hears sound as it happens.



Why do people get cochlear implants?

Hearing plays a vital role in living a happy, healthy life. But today, 466 million people, nearly 5% of the world's population, experiences hearing loss. Left untreated, it can become a struggle to fully connect with family, friends, and the world.

For people with mild-to-moderate hearing loss, hearing aids can provide an excellent solution. When the hearing loss is severe or profound, hearing aids may no longer meet your hearing needs. This degree of hearing loss may require a more advanced solution, such as a cochlear implant.

As parents of a child with hearing loss, you want your child to enjoy all the magical moments and playful discoveries of childhood. Hearing also plays an essential role in key areas of a child's development: speech, language, knowledge, social skills, and emotional well-being.

If left untreated, hearing loss may cause academic underachievement, challenges in the development of social behaviour, and emotional problems. Cochlear implants can help children fully enjoy the pleasures of these early precious years of life, and help them reach their full potential.

THERE ARE MORE THAN

730,000
registered Cls
implanted worldwide*

www.nidcd.nih.gov/health/cochlear-implants

What can CI wearers or parents expect?

As each cochlear implant wearer is unique, no one can predict exactly how much benefit you or your child will receive from a cochlear implant, because many individual factors contribute to the outcomes.

- Some biological factors include age at implantation, amount of previous hearing, duration of deafness, and health of the inner ear and hearing nerve.
- While biological factors may limit your hearing potential, you
 can maximise your benefit from the CI through listening exercise.
 Therefore, post-operative rehabilitation, and personal and family
 commitment, are key success factors.
- It takes technology to bring sound to the damaged auditory system, so implant design and sound processing are also important factors.
 The advanced technology and flexibility of the AB cochlear implant system are intended to help you or your child reach your hearing goals.

Surgery is a necessary but brief part of the process. Hundreds of thousands of people have undergone the routine procedure all around the world. You should talk to your surgeon or other medical staff about any concerns you may have about the procedure and recovery.





Why choose an Advanced Bionics cochlear implant system?

At Advanced Bionics, we believe everyone can live without the limitations of hearing loss.

For over 25 years, we've been developing leading hearing innovations that help people hear again, or for the first time. Our partnership with Phonak allows us to provide even more leading-edge hearing solutions through our integration with the world's most advanced and trusted power hearing aids.

Advanced Bionics provides a comprehensive range of products designed to meet your needs and your lifestyle. Our cochlear implant system offers more ways to hear than any other CI. And every aspect of our CI has been optimised for clarity, comfort, ease of use, and reliability—allowing you to hear your best.

Designed for life

Swim. Exercise. Fly. Connect. From the implant to the processor to the accessories, our cochlear implant system is built for seamless integration into your or your child's daily activities.

FUTURE-PROOF

It has spare capabilities which gives you peace of mind. The implant is designed to accommodate future new developments in signal processing and compatibility with product enhancements.

WIRELESS CONNECTIVITY

Go wireless with Bluetooth® and connectivity options for crystal clear phone calls and audio streaming at work, school, or home.

TWO EAR HEARING

Whether it's two CIs or one CI and a hearing aid, AB's partnership with Phonak means you'll hear your best with both ears.

ACTIVITY & FLEXIBILITY

Don't worry. The implant is designed to exceed industry standards for all-day use and impact resistance, so you can enjoy all of life's adventures without limits. Our CIs come with waterproof and dustproof options so that you can do what you love to do.

COLOUR OPTIONS

Showcase your personality with fun colours or subtle hues that offer a more discreet look.





A powerful sense of community

HEARINGJOURNEY

This online forum is the premier place to chat, laugh, learn, and share stories about cochlear implants and hearing loss. Register for free at HearingJourney.com

AB COMMUNITY

Reach out to your local AB representative and join the network of AB CI wearers, candidates, family members, and professionals who share and promote the benefits of cochlear implants and AB technology. Get in touch: hear-uk@advancedbionics.com

AB CONNECTIONS

Our blog features stories written by CI experts, parents of children with CIs, as well as adult CI wearers, about their hearing journey and helpful articles on hearing loss and cochlear implant technology. Get inspired here: AdvancedBionics.com/Blog

HEARINGSUCCESS

Our rehabilitation resource is designed for anyone using hearing aids or cochlear implants to get support and have better conversations. Take advantage of this free resource at HearingSuccess.com

Your next step

All around the world, tens of thousands of people have already benefited from our cochlear implants. Experience the powerful connection for yourself.

Visit AdvancedBionics.com and start your journey to better hearing today.

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