



Hearing again – when  
hearing aids aren't enough



# A guide to cochlear implants

Sometimes, a hearing aid just isn't enough. As wearers know, hearing aids can only amplify the sounds that are already audible. So, if you're severely or profoundly deaf, the effect can be likened to listening to a loud, badly tuned-in radio program. You only experience fragments of the show, but at full volume.

Hearing aids only stimulate the outer parts of the ear. For most people with severe to profound hearing loss, it's the inner ear that doesn't work properly. A cochlear implant bypasses the damaged parts, stimulating the nerve fibres directly – so you can hear.



## What is a cochlear implant?

A cochlear implant is a proven medical option designed to help you communicate more easily and interact more comfortably with others. It's an alternative to the traditional attempts to improve hearing ability, such as powerful hearing aids, which in many cases provide little or no assistance.

## What are the benefits?

Although no cochlear implant system can restore natural hearing, adult clinical trials of the Nucleus® cochlear implant indicate an average sentence understanding of 80% after three months of use and 90% after six months of use\*. This compares to 10% with hearing aids pre-operatively. Significant improvements were also demonstrated in understanding words and sentences, both in quiet and noisy environments, compared with hearing aids.

75% of adults in the trials reported being able to communicate more effectively at dinner parties, while driving with family members, and when ordering meals at a restaurant. The cochlear implant users felt that their quality of life had been improved after receiving a Nucleus cochlear implant.

Talking on the phone to your children or grandchildren, participating in meetings and enjoying concerts and cinema may again become a reality after implantation. With special technology and accessories for different hearing environments, the Nucleus cochlear implant system adapts to your day, allowing you to concentrate on your life, not on your deafness.

\*Data taken from 'The Nucleus 24 Contour Cochlear Implant System: Adult Clinical Trial Results'; where (n=56) after three months of use; (n=17) after six months of use.

# How has it worked for others?

"I wore a hearing aid for years and you can't compare them to the implant," Chris Boyce, aged 55, of Sydney tells us. "With hearing aids I couldn't stand music for instance. They just accentuated the volume. Now I love it and I can even hear myself sing – badly!"

Jeanne Milne, aged 72, of Old Greenwich enthused "I can finally join parties, groups, go to meetings, hear bells, environmental sounds and distinct speech. It's meant a huge social life improvement. Nature's sounds are glorious. And my speech has improved".


"I can understand speech and environmental sounds again, and can discriminate between them," Sean McNamara, aged 42, of Indianapolis told us. "I enjoy music, and the implant works very well for me with music."

Edward Cozine, aged 59, of New Jersey said "I was against getting an implant as I was sure it would not work. I submitted to the implant just to please my wife, Barbara. Now, I only remove my processor when showering. I love to wear it to bed and listen to my wife breathe. I will also hear the sound and wake up if one of my grandsons cries".

Rebecca Walls, aged 48, of Knoxville, said simply "It saved my nursing career".

And Katherine Allen, aged 40, of Lansing explained "My friends and family all find it much easier to communicate with me in social activities. They are so pleased that I am able to talk to them on the telephone. They also understand much more about my hearing loss and the effect it has had on my life".

Imagine what an implant could do for you.



*Nature's  
sounds are  
glorious.*



## Is a cochlear implant right for you?

If you decide to investigate further, the next step is a clinical evaluation to determine if you are a suitable candidate. A skilled team of cochlear professionals can conduct a thorough examination, including hearing and medical tests, and can advise you if you are likely to benefit. You'll also receive further information about what happens during the implant process.

Before making any decisions, we recommend that you talk to an existing Nucleus® user, so that you can ask questions and learn about the realities of life with an implant. You can get in touch online at [www.cochlear.com](http://www.cochlear.com)

## Implant surgery and follow-up

Surgery under general anaesthesia is required to implant the internal components of the Nucleus cochlear implant. This routine procedure can be performed in either a hospital or day centre setting. After surgery, the incision generally heals within three weeks. And you'll start hearing as soon as we fit the external components. The system is then programmed to meet your individual hearing needs, and regular fine tuning ensures that you get the most from your system.

## Insurance cover

Many Nucleus candidates find that medical insurance or other forms of financial assistance cover part or all of the cost. This is dependent upon your country's health care system. The implant centre staff can help you explore your options.

*Cochlear has over 175 000 patient years of cumulative experience, drawn from around 40 000 cochlear implant recipients in 78 countries around the world.*

# Why choose Cochlear?

## Cochlear – the world leader

Cochlear is the global leader in implant hearing technology. Today Cochlear products are used in more than 1000 clinics worldwide and support more than approximately 40 000 recipients in 78 countries.

Nearly three quarters of all implant users worldwide wear Cochlear's internationally award-winning Nucleus® products.

Cochlear has achieved more world firsts in cochlear implant technology than any other company. Developed from the work of cochlear implant pioneer Professor Graeme Clark, Cochlear continues to make research into hearing solutions its core activity. Today Cochlear is working on more than 90 collaborative research projects in 60 countries around the world.

Solid, long-term financial strategies ensure Cochlear has the size, strength, and ethical business practices that will ensure lifetime support for all recipients.





*Cochlear has the size, strength, and ethical business practices that will ensure lifetime support for all recipients.*

Cochlear is a publicly listed company operating in an ever expanding list of countries throughout the world. To name just a few, you'll find Cochlear clinics in Australia, Canada, China, France, Germany, Greece, India, Italy, Japan, Korea, Poland, South Africa, South America, Spain, Taiwan, the UK and the USA, providing care and support wherever you are.



# A guide to cochlear implant procedure

This summary explains more about what's involved, and will help you to make an informed decision about your future hearing. This information should provide a foundation for discussion with your professional medical advisor.

## How it works

A cochlear implant has both internal and external parts.

1. Sound is picked up by a microphone.
2. Sound is sent from the microphone to the speech processor.
3. The speech processor analyzes and digitizes the sound into coded signals.
4. Coded signals are sent to the transmitter.
5. The transmitter sends the code across the skin to the internal implant.
6. The internal implant converts the code to electrical signals.
7. The signals are sent to the electrodes to stimulate the remaining nerve fibres.
8. The signals are recognized as sounds by the brain, producing a hearing sensation.

The speech processor is programmed to your individual hearing needs.

The brain receives information within microseconds of the microphone picking up sound, so you hear sounds as they occur.

## Taking the first step

Your first step is a visit or a call to a cochlear implant centre, to talk to clinicians and doctors about your hearing impairment. Specialists at over 550 centres worldwide implant the Nucleus® system and provide extensive service and support to candidates and their families.

To learn more about Nucleus cochlear implants, or to locate a Nucleus implant centre near you, please contact your local Cochlear office or visit our website [www.cochlear.com](http://www.cochlear.com)



Behind the ear – ESprit™ 3G

### **Cochlear Limited**

(ABN 96 002 618 073)

14 Mars Road, Lane Cove, NSW 2066, Australia.

tel: 61 2 9428 6555 fax: 61 2 9428 6352

### **Cochlear Americas**

400 Inverness Drive South, Suite 400 Englewood, CO 80112, USA.

tel: 1 303 790 9010 fax: 1 303 792 9025

### **Cochlear Europe Ltd**

22-24 Worpole Road, Wimbledon, London SW19 4DD, UK.

tel: 44 20 8879 4900 fax: 44 20 8946 9066

### **Cochlear GmbH**

Karl Wiechert-Allee 76A, D-30625 Hanover, Germany.

tel: 49 511 542 770 fax: 49 511 542 7770

### **Cochlear AG**

Margarethenstrasse 47, CH – 4053 Basel, Switzerland.

tel: 441 61 205 0404 fax: 41 61 205 0405

### **Nihon Cochlear Co Ltd**

Ochanomizu-Motomachi Building, 2-3-7 Hongo, Bunkyo-Ku,

Tokyo 113-0033, Japan.

tel: 81 3 3817 0241 fax: 81 3 3817 0245

### **Cochlear (HK) Ltd**

21F Shun Ho Tower, 24-30 Ice House Street, Central, Hong Kong.

tel: 852 2530 5773 fax: 852 2530 5183

\*Nucleus is a registered trademark of Cochlear Limited. ESPrIt is a trademark of Cochlear Limited.

[www.cochlear.com](http://www.cochlear.com)

Hear now. And always.



**Cochlear**