

Cochlear™ Nucleus® 6 System

Simply Smarter

in every hearing situation



Hear now. And always



Welcome

to a world of simply smarter hearing

Today, thousands of children around the world who were born deaf or lost their hearing are now growing up in a world of sound with a cochlear implant.

We understand that like any parent, you want your child to have every opportunity to lead a normal life.

You look forward to those special moments like hearing them speak their first words, listening to their first school concert, watching them play in the soccer team and being there when they graduate.

Learning that your child has hearing loss can be devastating for a parent but rest assured there are solutions that can help your child to hear, so they don't have to miss out on those special moments.

Let us tell you how we can help your child enjoy the benefits of simply smarter hearing with the Cochlear™ Nucleus® 6 System.

*Her language
has just exploded!*

Nadedja Biankin, mother of Anna





Anna Biankin
Cochlear implant recipient since 2011

Enjoy simply smarter hearing

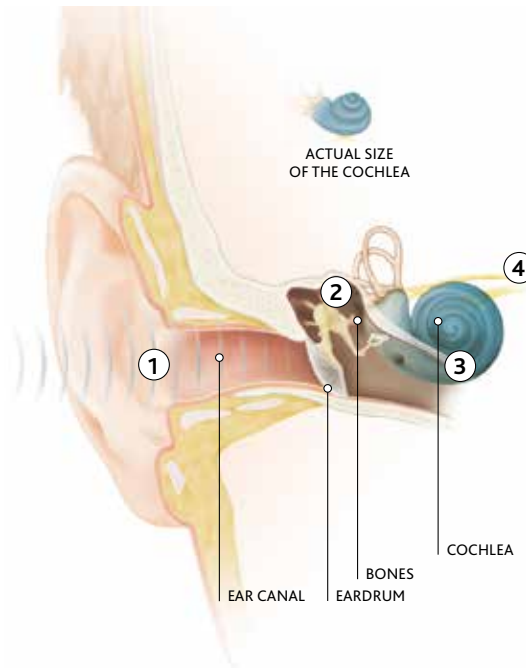
How it works

A cochlear implant is an established, effective and long-term solution for those with moderate to profound hearing loss.

A cochlear implant system bypasses the parts of your child's ear that no longer work properly, delivering sound in the form of electrical signals via the hearing nerve to the brain.

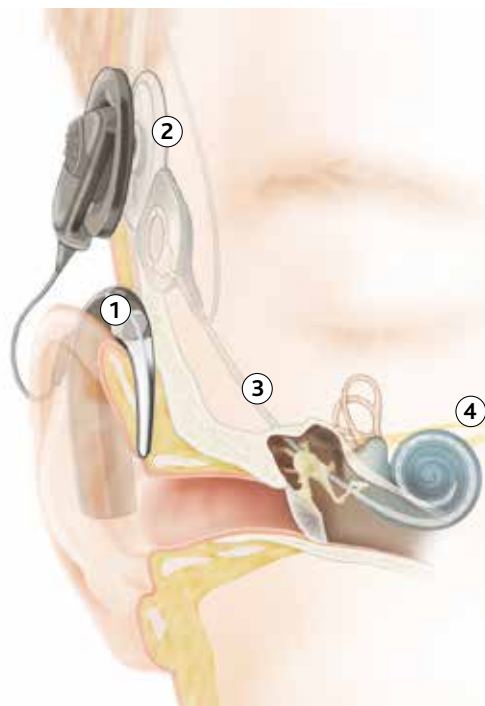
Having a cochlear implant involves a routine surgical procedure to insert the implant under the skin behind the ear and place the electrode into the cochlea. This well-established procedure normally takes between 1-2 hours.

The sound processor is normally switched on between 2-4 weeks after surgery. Once switched on, your child's hearing journey begins.



HOW HEARING WORKS

1. Sound waves travel through the ear canal and strike the eardrum.
2. These sound waves cause the eardrum and the three bones within the middle ear to vibrate.
3. The vibrations are transferred to the fluids in the inner ear – known as the cochlea – and cause the tiny hair cells in the cochlea to move.
4. The movement of the hair cells produces neural impulses which are sent along the hearing nerve to the brain, where they are interpreted as sound.



HEARING WITH A COCHLEAR IMPLANT

1. Microphones on the sound processor pick up sounds and the processor converts them into digital information.
2. This information is transferred through the coil to the implant just under the skin.
3. The implant sends electrical signals down the electrode into the cochlea.
4. The hearing nerve fibres in the cochlea pick up the signals and send them to the brain, giving the sensation of sound.

*I'm just a normal kid
with a bit of extra hardware.*



Jack McLeod
Bilateral cochlear implant recipient since 1997

Enjoy a party with friends

Simply smarter hearing



Alexander Ladas
Cochlear implant recipient since 2006



Alexander had a great time at his party, he was joking and laughing with all of his friends, it's wonderful to see him so confident socially.

Noni Ladas, mother of Alexander



Nucleus 6

Simply smarter

The Cochlear Nucleus 6 System is our most advanced hearing solution to date, designed with a clear purpose – to help your child simply enjoy smarter hearing.



Two microphones work together to focus on sounds coming from **particular directions**, and suppress other unwanted noise.



Our new chip is **five times more powerful** than the industry leading Nucleus 5 System chip, enabling **automated sound technologies, wireless capabilities** and so much more.



Simply designed around them

- Easy to use – works automatically but also comes with personal control options.
- Small, light and ergonomically designed for comfort.
- A choice of wearing, styling and power options to suit even the most active child.
- Comes with an innovative water repellent coating on the surface of the sound processor so your child can relax around water and be confident it will keep on working.
- Built to last for a world of reliable hearing.

Smarter hearing made easy

- Our intelligent sound management system, SmartSound® iQ, can automatically adapt to your child's hearing environment. Alternatively it can be programmed specifically to meet your child's needs.
- Your child can enjoy the best of both worlds with the all-in-one cochlear implant and hearing aid configuration.
- Wireless ready for a range of wireless accessories under development.

Enjoy peace of mind

- Enjoy a lifetime of commitment from Cochlear – everyone who chooses to hear with our products, will always have access to support and sound processor upgrades.
- Globally, seven out of ten people who choose an implantable hearing solution choose Cochlear.



Simply smarter in every hearing situation

SmartSound® iQ

The Cochlear Nucleus 6 System is the only implantable hearing solution with SmartSound iQ, the world's most intelligent and fully automated sound management system.


The world is made up of many different types of sound that can be challenging when you have difficulty hearing.

To give your child the best hearing every time, they need a system that can manage these different types of sound.

SmartSound iQ has a range of individual technologies that are designed to work together seamlessly to help your child enjoy the best of their hearing world.

Even better, it can do this automatically, so you don't have to worry about it.

Your clinician may however decide that specific listening programmes are more suitable for your child depending on their age and stage of development. With Nucleus 6, they have the flexibility to do this and to switch back to the automatic setting when appropriate.



Emily has lots of friends.
She loves to study and
has been elected Sports
Captain at school.

Becky Ralph, mother of Emily



Emily Ralph
Cochlear implant recipient since 2003

Simply smarter in every hearing situation

SmartSound iQ

SmartSound iQ has a unique range of specifically designed technologies to meet your child's needs in every listening environment.



We've designed SmartSound iQ to give your child the best hearing experience by identifying different listening situations and automatically activating specific technologies – they don't even have to think about it! Alternatively, your child's health professional can programme the Cochlear Nucleus 6 System for the situations that are most suitable for them.



SPEECH IN NOISE

Join the conversation in noisy surroundings like a birthday party or the school playground



SPEECH

Hear clearer and crisper speech in the classroom or around the dinner table



NOISE

Hear comfortably in noisy environments like busy streets



WIND

Hear comfortably while playing in the windy outdoors



QUIET

Appreciate soft sounds and whispered voices in quiet environments



MUSIC

Enjoy listening to music and even learn to play a musical instrument

Make the most of their natural hearing

Smart all-in-one design

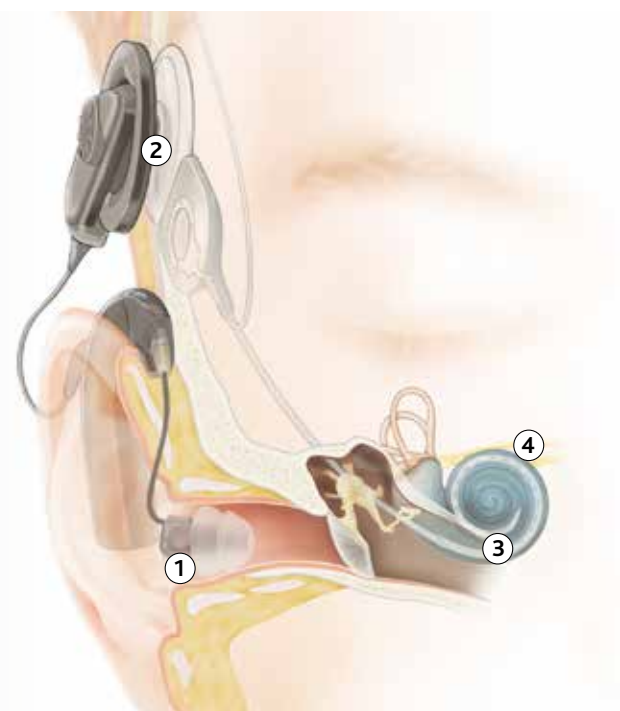
Nucleus 6 is capable of operating both as a hearing aid and a cochlear implant system simultaneously and seamlessly.

Sound can be categorised into two types:

- Low frequency – providing the foundation and structure of sound like vowel sounds and the melody of speech – these are important for voice recognition and detecting emotion;
- High frequency – providing the additional vital details of sound, helping to identify and differentiate words and improving quality and clarity – these are important for speech understanding, particularly in noisy situations.

At the time of choosing an implantable hearing solution your child may still have some limited ability to hear low frequency sounds.

While this remaining hearing may not be enough on its own to allow them to understand and communicate, it can complement their hearing experience when combined with the hearing delivered by a cochlear implant.



HOW THE ACOUSTIC COMPONENT WORKS

1. The acoustic component, like a hearing aid, amplifies low frequency sounds and sends them via the normal hearing pathway.
2. At the same time, the processor converts high frequency sounds to digital information which is sent to the implant under the skin.
3. The implant sends electrical signals down the electrode into the cochlea, stimulating the nerve fibres.
4. This nerve response is sent to the brain, where it is combined with the response from the amplified sounds from the acoustic component into a perceived sound.



Connect today and be wireless ready

Smart connectivity solutions

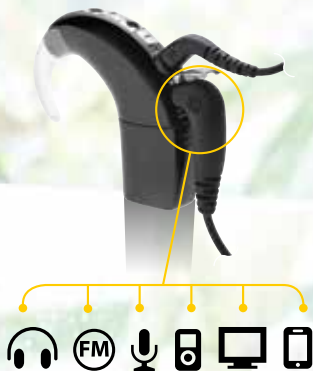
TALKING ON THE PHONE

Using the phone – both landlines and mobile phones – has never been easier. They just need to put it next to their ear and the Cochlear Nucleus 6 System detects the phone signal, switching over to the inbuilt telecoil automatically, to optimise their hearing on the phone.

There is no need to plug anything in, no need to change anything on their system – they just hold the phone to their ear. Simple.

CONNECT TO AUDIO TODAY

With our range of accessories the sound processor can be connected directly to the television or MP3 players and it will automatically adjust the settings to optimise listening enjoyment.





WIRELESS READY

The processing power of the new chip inside Nucleus 6 creates exciting new opportunities in device connectivity.

The system has already been designed to take advantage of advanced wireless technology.

With a simple software upgrade under development, your child's sound processor will be able to connect to a wide range of wireless audio accessories that will also be compatible with ReSound hearing aids – no more cables or neck worn devices.



Options that grow with your child

Smart design features

Nucleus 6 comes in a range of wearing options to suit your child's age and lifestyle.

THE SMALLEST PROCESSOR AVAILABLE

The CP920 Sound Processor is not only stylish, it's also the most compact on the market for little ears. Alternatively, if your child is likely to use plug-in accessories they can choose the CP910. Both sound processors will be able to work with a range of wireless audio accessories under development.

LIGHTER FOR LITTLE ONES

The LiteWear accessory allows you to take the battery module from behind your child's ear and attach it securely to their clothing – particularly useful for very young children.



CP910 Sound Processor with accessory hatch

CP920 Sound Processor



Snugfit accessory

SAFE AND SECURE

We also have a specially designed Snugfit accessory to keep the sound processor safely on their ear when they're at their most active.

MORE WEARING COMFORT

Our range of soft earhooks has been ergonomically designed for maximum comfort, even for little ears.





FUN WITH COLOURS

Your child can design their own with a range of 12 sound processor and coil covers in bright colours and patterns.



CARBON



MAIZE



SMOKE



MOCHA

SUBTLE SHADES

For when they prefer to blend in, the Nucleus 6 Sound Processors come in a variety of colours designed to match hair and skin tones.



SEE THEY'RE HEARING

The sound processors come with a number of indicator lights that allow you to tell at a glance that everything is working as it should be. These are optional settings that can be adjusted by your clinician as required.



FOCUS IN CLASS

FM systems are often used in classrooms to help your child hear the teacher clearly. For these situations, Nucleus 6 is compatible with a wide range of FM systems.



Confidence and freedom to choose

Smart design features

From the smallest sound processor to a wide range of battery options, the Cochlear Nucleus 6 System is designed for the most active children through to busy teenagers.



SIMPLE CONTROL

When they're a little older, a discreet pocket-sized remote control with a handy display screen will allow your child to adjust simple settings without touching their sound processor.

ADVANCED MONITORING

When they're younger, you can confidently monitor and manage their hearing with the full featured remote assistant.



BUILT TO LAST

Nucleus 6 Sound Processors are built from tough materials to withstand even the most active lifestyle. Titanium bayonet connectors bring strength to the core of the processor for easy, reliable connection and disconnection of battery modules.

TAMPER PROOF

Battery modules can also be locked onto the processing unit so they are safe from curious little hands.

KEEPING THEM ON AIR, EVERYWHERE

A choice of battery options are available including standard or compact rechargeable batteries; plus a standard disposable battery option that can be used for those times they don't have access to power, like school camping trips.



Max loves school. He's a very social boy, he's got lots and lots of friends and he's just a normal little boy.

Emma Harpham, mother of Max

Max Harpham
Cochlear implant recipient since 2005

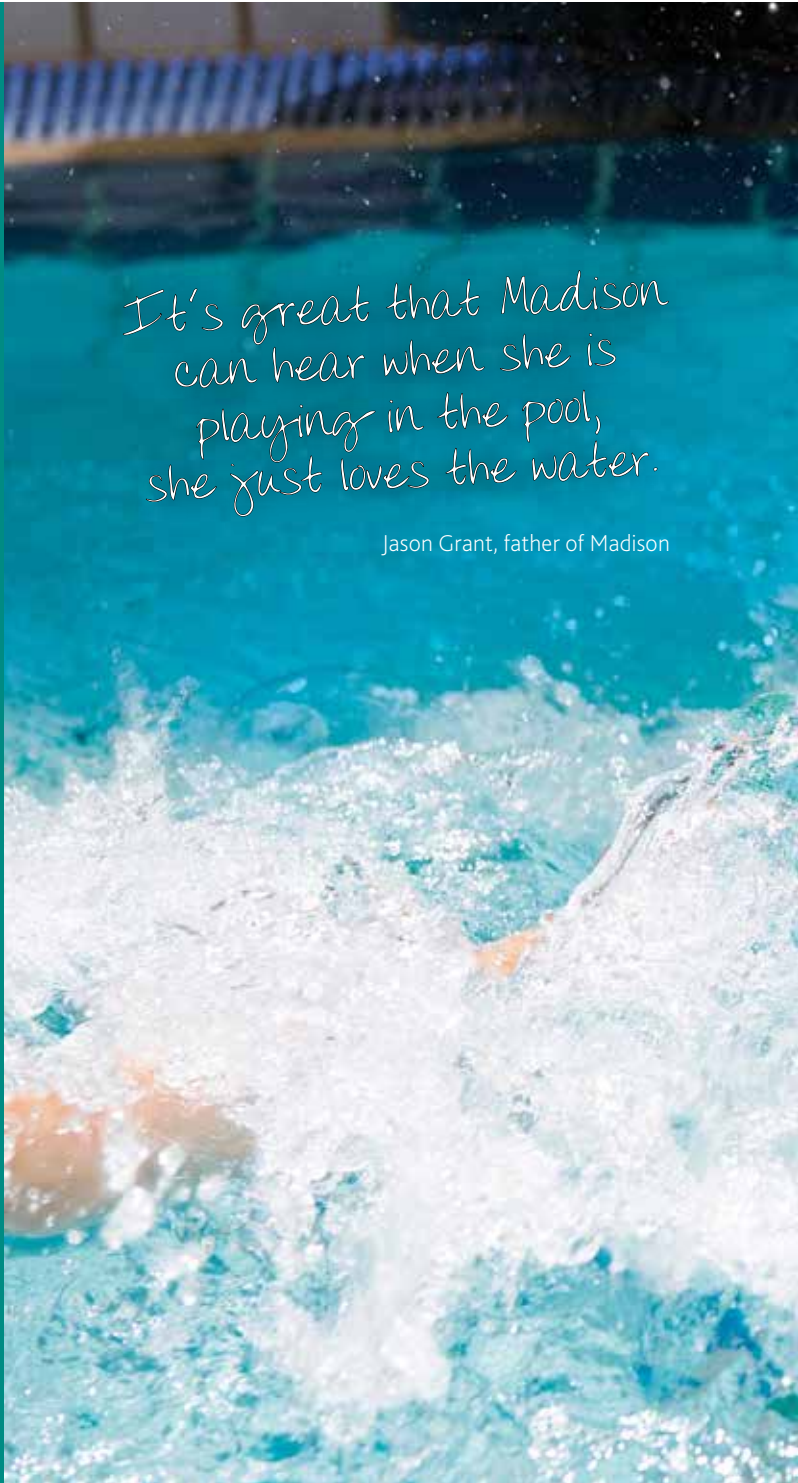
Be confident in and around water

Smart water-resistant design

Your child can splash around in the bath or the pool, or run through the sprinklers – with Nucleus 6, they can relax around water and be confident their sound processor will keep on working.

With an IP57* rating, no behind-the-ear worn processor is more water resistant than Nucleus 6.

And now with Nucleus 6, each sound processor has an advanced water repellent coating, making it more reliable around water than ever before.



It's great that Madison can hear when she is playing in the pool, she just loves the water.

Jason Grant, father of Madison

* With rechargeable batteries.

WATERPROOF

If there are times when your child needs something completely waterproof, the new Aqua Accessory* enables them to dive right in without compromising their hearing. It is easy to use and will fully protect their system.



Madison Grant
Cochlear implant recipient since 2005

Manage their hearing with ease

Smart control

While the Cochlear Nucleus 6 System is capable of adjusting to your child's environment automatically, we understand that you need to be involved in monitoring and managing their hearing, especially when they're very young.

The CR230 Remote Assistant gives you the confidence of knowing everything is working as it should be, at the touch of a button. Whether you just want to check the status of their battery or make sure their coil is correctly attached, you can do so without having to touch the sound processor.

If your child has specific settings that have been programmed by their clinician, with the intuitive full colour LCD screen you can easily see which one they're in at any time and change if necessary.

The remote assistant has also been designed to help you solve simple issues without having to return to the clinic.

For children who have a Nucleus Sound Processor on each ear, both can be controlled using the same device.



- Intuitive full colour LCD screen.
- One button check to monitor the status of the processor, battery, coil and cable.
- Adjust the telecoil settings for phone use.
- Available in local languages.
- USB port for future exchange of information with hearing clinic.



Anna Biankin
Cochlear implant recipient since 2011

A lifetime of reliable hearing

Smart design

As technology develops and sound processors become even more powerful the sophisticated electronics in the implant have the capacity to support these advancements. This ensures your child's hearing performance can improve as technology advances without the need for further surgery.

QUALITY SOUND

- The greatest number of real electrodes designed to deliver a finer representation of sound.
- Proven 22 channel electrode configuration allowing listeners to distinguish a greater number of pitches (up to 161 intermediate pitches) for a more natural experience of sound.

RELIABILITY

- The Nucleus CI24RE Cochlear Implant has been used to help improve hearing in over 90,000 ears around the world.
- It is made with the toughest and most resilient materials available.
- It has the best long-term reliability record in the industry – 99% over eight years with over 90,000 implants.

MRI

- Rest assured that should your child ever need a MRI, a commonly used medical diagnostic screening tool, they can still have one.
- The Nucleus Cochlear Implant is the only one approved for scans up to 1.5 Tesla (the most commonly used level) without needing to remove the magnet and also capable of accommodating imaging at 3 Tesla with the magnet removed.



SHAPED TO FIT NATURALLY

As the leaders in innovative design, our engineers pioneered the shape of our electrodes to fit the natural curves of the cochlea for improved performance. This is important for protecting the delicate structures within the cochlea to preserve as much hearing as your child may have left.

A RANGE OF ELECTRODES

We recognise that not everyone's ears are the same, so with Cochlear's unique range of electrodes that come with this implant your child's health care professional can choose the right option to suit their individual needs.



Electrodes have been enlarged to show detail.

Enjoy a lifetime of improvement

Our commitment to you

At Cochlear we are committed to ensure that as your child grows they have access to the latest sound technologies, providing continuous improvement to their hearing without the need for extra surgery.

As a child, Holly Taylor became profoundly deaf and in 1987, at the age of four, she became one of the world's first children to receive a cochlear implant.

Understandably, this was a difficult decision for her parents, however for Holly, it was one of the best decisions they ever made. To Holly it meant enjoying all the opportunities available to other children and she certainly made the most of it.

Having enjoyed school and an active social life, Holly graduated from university and is today a lawyer and happily married. Holly believes that deafness should not be a barrier to achieving what you want and she has proved it.

Since receiving her cochlear implant, Holly has enjoyed five product upgrades and is looking forward to further improvements, which ultimately means better hearing and a better quality to the life that Holly wishes to live.

I happily attended mainstream schools and achieved my own personal and career goals.

Holly Taylor
Cochlear implant recipient since 1987



Holly's story. One implant surgery. Five upgrades. Unlimited possibilities.

25 years after her implant, 29-year old Holly Taylor enjoys the benefits from multiple sound processor upgrades – without changing her implant.

THEN

Holly lived in a world of silence. Her mother wanted to give her a normal childhood, and a better future.



1987

At age 4, Holly became one of the first paediatric recipients of a Nucleus Cochlear Implant.



1988

Holly started school – and attended mainstream schools for 13 years, from kindergarten to year 12.



2000

Holly graduated from high school in the top 2% of students in the state.

2007

Holly graduated from university with first class honours in Law.



NOW

Happily married, working as a lawyer and living life to the full.

Welcome

to the Cochlear family

When your child sets out on the journey of lifelong hearing improvements with a Cochlear system, you join our family too – a family that includes over a quarter of a million people who hear with a Cochlear implant system around the world.

It also includes a family of over 2,500 Cochlear employees that are passionate about hearing and take what they do very seriously. We employ some of the most skilled professionals from around the world with

specialists in hearing technology, experts from different fields of engineering, audiology and speech and language pathology.

As a pioneer of implantable hearing solutions, we remain at the forefront of the industry and are constantly finding new and innovative ways to further improve your child's hearing. We make the largest investment in the industry into research and development of new technology for those who use our solutions today as well as future generations.



7/10

Globally, seven out of ten people who choose a cochlear implant choose Cochlear.

Our development programme includes collaboration with world-leading experts in a variety of medical and scientific fields. We have more than 100 active research partners across 20 countries. Wherever your child goes in the world, Cochlear is there to support them.

Nucleus 6, like every Cochlear product before it for 30 years, is built on a commitment to lifetime support. Our solutions will continue to grow with your child, every step of the way.



Professor Graeme Clark AC
with recipients at the Cochlear Celebration,
San Diego, USA, February 2013

Hear now. And always

As the leading global expert in implantable hearing solutions, Cochlear is dedicated to bringing the gift of sound to people all over the world.

For thirty years, Cochlear has pioneered this technology, helping more than a quarter of a million people reconnect to their families and friends.

Along with the industry's largest investment in research and development, we continue to partner with leading international researchers and hearing professionals, ensuring that we are at the forefront of hearing science.

For our customers, that means access to our latest technologies throughout their lives, and the ongoing support they need.

That is why seven out of ten people worldwide who choose a cochlear implant choose Cochlear as their hearing partner.



Cochlear Ltd (ABN 96 002 618 073) 1 University Avenue, Macquarie University, NSW, 2109, Australia Tel: +61 2 9428 6555 Fax: +612 9428 6352

Cochlear AG EMEA Headquarters, Peter Merian-Weg 4, 4052 Basel, Switzerland Tel: +41 61 205 0404 Fax: +41 61 205 0405

ECREP Cochlear Deutschland GmbH & Co. KG Karl-Wiechert-Allee 76A, 30625 Hannover, Germany Tel: +49 511 542 770 Fax: +49 511 542 7770

Cochlear Europe Ltd 6 Dashwood Lang Road, Bourne Business Park, Addlestone, Surrey KT15 2HJ, United Kingdom Tel: +44 1932 26 3400 Fax: +44 1932 26 3426

Cochlear Benelux NV Schaliënhoedreef 20 i, B-2800 Mechelen, Belgium Tel: +32 15 79 55 11 Fax: +32 15 79 55 70

Cochlear France S.A.S. Route de l'Orme aux Merisiers, Z.I. Les Algorithmes - Bât. Homère, 91190 Saint-Aubin, France Tel: +33 805 200 016 Fax: +33 1 60 196 499

Cochlear Italia S.r.l. Via Larga 33, 40138 Bologna, Italy Tel: +39 051 601 53 11 Fax: +39 051 39 20 62

Cochlear Nordic AB Konstruktionsvägen 14, 435 33 Mölnlycke, Sweden Tel: +46 31 335 14 61 Fax: +46 31 335 14 60

Cochlear Tıbbi Cihazlar ve Sağlık Hizmetleri Ltd. Şti. Çubuklu Mah. Boğaziçi Cad., Boğaziçi Plaza No: 6/1, Kavacak, TR-34805 Beykoz-Istanbul, Turkey Tel: +90 216 538 5900 Fax: +90 216 538 5919

www.cochlear.com

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