



MED-EL

Life After Hearing Aids Your Journey with MED-EL

hearLIFE

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Welcome

This guide has been created to support you on your journey towards better hearing.

We know that considering solutions beyond hearing aids can feel like a big step, and it is not always an easy one to take. It is common for many people to delay a hearing test or continue with hearing aids, even when they are no longer as helpful as they used to be.

Hearing aids, which amplify sounds, are the most widely used solution for hearing loss. However, when hearing aids are no longer able to meet your needs, hearing implants and non-surgical systems can be alternatives to explore.

There are three main kinds of hearing implants: cochlear implants, middle ear implants, and bone conduction implants.

There are also non-implanted bone conduction systems. Which system is most suitable depends on the type of hearing loss.

In this guide, you will find helpful information about how hearing works, what hearing implants and non-surgical bone conduction systems are, how they function, and the benefits they can bring to your life.

You will also learn about the referral process, what to expect at the start of your hearing journey, and the steps ahead as you move towards rediscovering the joy of hearing.

We are here to help guide you every step of the way. Welcome to this exciting journey!



How Hearing Works and Hearing Loss

Firstly, let us look at how we hear.

The outer ear funnels sound into the **ear canal** and causes the eardrum to move.

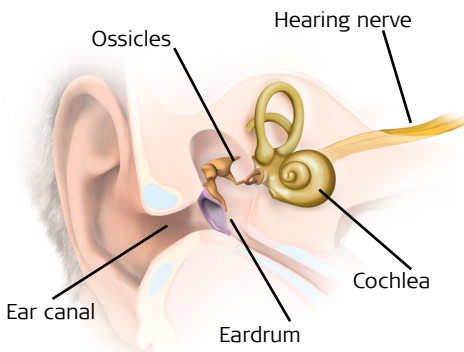
The **eardrum** vibrates with the sound.

These vibrations move through the **ossicles** to the cochlea (the inner ear).

The vibrations cause the fluid in the **cochlea** to move.

Fluid movement causes the hair cells within the cochlea to “bend” and send signals to the hearing nerve.

The **hearing nerve** sends these signals to the brain where they are interpreted as sounds.



When we have two working ears, working together, our brains can use both to help with ‘screening out’ background noise (easier to hear in noisy situations), and finding from which direction sounds came from.

If there is a problem in any part of the ‘hearing chain’, hearing loss can result. Depending on the type of problem, it may be possible to correct it with a medical, or surgical, treatment; or in many cases a conventional hearing aid may be suitable. However, if there are obstacles to using a hearing aid, or there is too much damage to the hearing system, a hearing implant may offer a better solution.

Hearing losses are categorised by the way they affect the hearing chain. Conductive losses involve a difficulty in vibrations reaching the cochlea. Sensorineural losses involve damage to cells inside the cochlea. Mixed losses include both. Hearing losses are graded into how much of an effect is observed on a hearing test: Normal (no hearing loss), Mild, Moderate, Severe, Profound.

Single-Sided Deafness (SSD) refers to a situation where one ear is so badly affected that hearing aids, and some implant types can not help to regain hearing on this side, but the other side has normal hearing, or enough hearing that conventional hearing aids can provide a good solution.

What is a Cochlear Implant?

Hearing aids help by making sounds louder, which can work if the tiny hair cells in your inner ear are only slightly damaged. But if there's too much damage (severe to profound hearing loss), hearing aids might not help enough.

A cochlear implant is a medical device that helps people hear when hearing aids no longer work. Instead of using damaged hair cells, it sends small electrical signals directly to the hearing nerve. This creates the sensation of hearing sound.

A cochlear implant system has two main parts:

External audio processor – Worn on or off the ear, depending on the model. This is the part you use every day and may think of as your "ear."

Internal implant – Placed under the skin during surgery. It includes tiny wires (called an electrode array) that go into the cochlea (the hearing part of the inner ear).

The external processor picks up sound and sends it to the implant. After surgery, the implant is hidden under the skin and is not visible.

Bimodal Hearing: Using Both Ears

Cochlear implants and hearing aids work in different ways, but they can be used together. If you wear a cochlear implant in one ear and a hearing aid in the other, it's called bimodal hearing.

Why use both? Because hearing with both ears helps you understand sounds better. Whenever possible, it's best to use both ears to hear.



How do Cochlear Implants Work?

The **audio processor** picks up sounds around you and turns them into electrical signals.

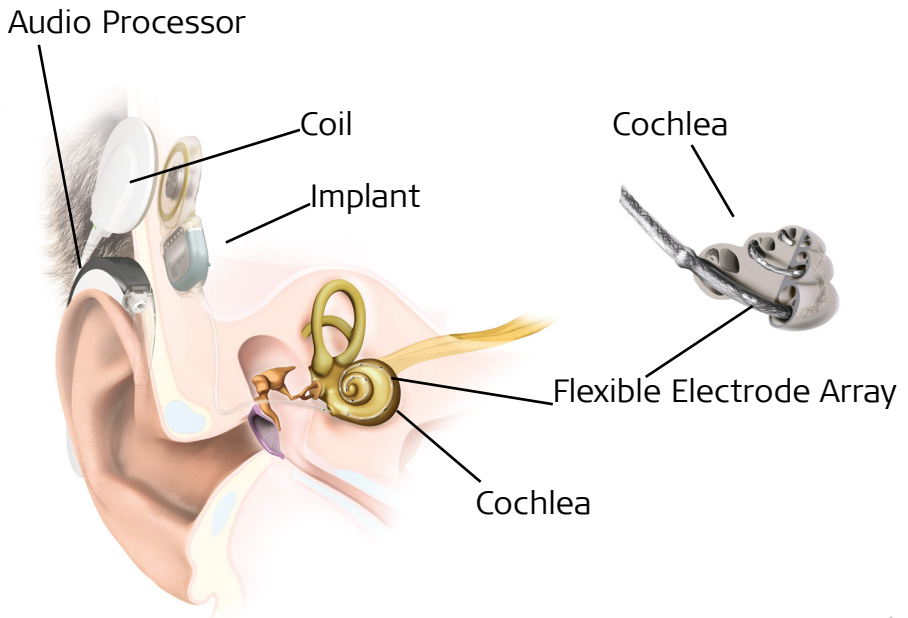
These signals, along with power, are sent through the skin to the **implant** using a small **coil**.

The implant changes the signals into tiny electrical pulses.

These pulses travel through a wire (called **an electrode array**) into the **cochlea** (the hearing part of the inner ear).

Inside the cochlea, the pulses stimulate the hearing nerve.

The hearing nerve sends the signals to the brain, which understands them as sound.



What is a Middle Ear Implant?

A middle ear implant is designed for people who have mild to severe sensorineural hearing loss, conductive, or mixed hearing loss, and don't get enough benefit from hearing aids or cannot wear hearing aids for medical reasons.

Unlike hearing aids, which rely on the whole hearing chain, a middle ear implant sends sound directly into the middle ear in the form of vibrations. This can give a more natural sound quality and can make it easier to enjoy everyday sounds.

The system has two parts:

- An internal implant (placed inside the head and the middle ear).
- An external audio processor (worn on the outside).



How do Middle Ear Implants Work?

The audio processor sits on the head and stays in place using a magnet. It has microphones that pick-up sounds and turn them into electrical signals.

These signals are sent through the skin to the middle ear implant inside the ear. The implant passes the signals to a tiny part called the FMT (Floating Mass Transducer)—it's smaller than a grain of rice!

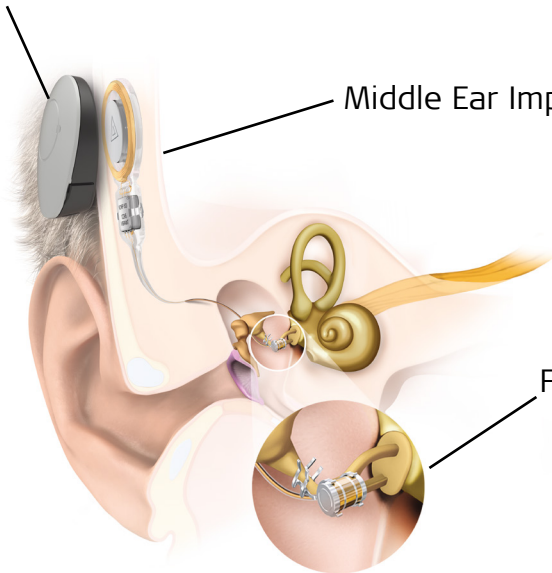
The FMT changes the signals into vibrations. These vibrations move parts of the middle ear (like the small ear bones).

The sound then travels to the inner ear, which converts the vibrations into nerve signals, which go on to the brain, where they're understood as sound, just like the last step in the process in normal hearing.

Audio Processor

Middle Ear Implant

Floating Mass Transducer



What is a Bone Conduction Hearing Implant?

A bone conduction hearing implant helps people with a conductive hearing loss, mixed hearing loss and single-sided deafness (SSD - where one ear has severe-profound deafness and can't benefit from a hearing aid).

Normally, sound travels through the outer and middle ear to reach the inner ear. But if part of the hearing chain is damaged, sound can't get through properly.

Bone conduction implants bypass the damaged part of the hearing chain, and sends sound through the bones of your skull, as vibrations, directly to the inner ear.

The system has two parts:

- An internal implant (placed under the skin).
- An external audio processor (worn on the outside).



How does a Bone Conduction Hearing Implant Work?

The **audio processor** sits on the head and stays in place with a magnet. It has microphones that pick-up sounds and turn them into electrical signals.

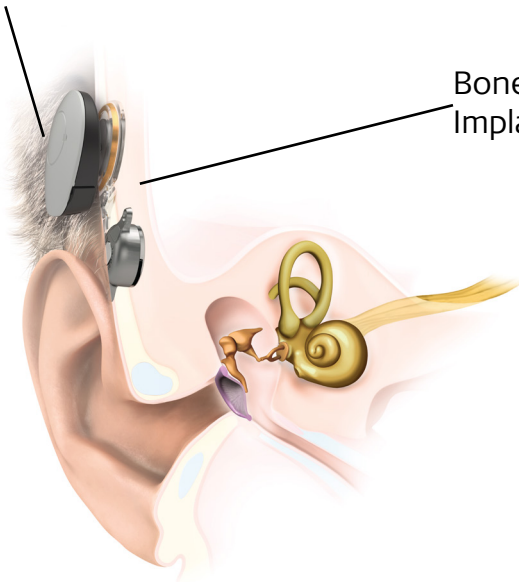
These signals are sent through the skin to the **bone conduction hearing implant**, which is placed in the bone behind the ear (called the temporal bone). The implant changes the signals into vibrations. These vibrations travel through the skull bone to reach the inner ear.

This bypasses the outer and middle ear, sending sound directly to the inner ear. The inner ear then processes the vibrations and sends the sound information to the brain, just like the last step in the process in normal hearing.

When used in SSD, the processor and implant are placed on the affected (worse) side. The vibrations of the skull then can reach the opposite side cochlea and cause a sensation of sound. This helps with awareness of sound on the affected side, but it generally will not help with finding directions of sounds or improve listening in noisy situations.

Audio Processor

Bone Conduction Hearing Implant



What is a Non-Surgical Bone Conduction System?

A non-surgical hearing device is worn on the outside of your head and doesn't require any permanent implant. It uses bone conduction to help you hear. It's made for people with a conductive hearing loss (when the outer or middle ear is damaged) or single-sided deafness (it sends sound from the deaf side to the hearing side). This device sends sound through the bones of your skull to your inner ear, helping you hear more clearly—without surgery.

The system has two parts:

- An adhesive adapter that sticks to the skin behind your ear.
- An audio processor that clicks onto the adapter and picks up sound.



How does a Non-Surgical Bone Conduction System Work?

The adhesive adapter sticks to the hairless skin behind your ear. The audio processor snaps onto the adapter. It picks up sound and turns it into vibrations. These vibrations travel through the adapter and into the skull bone. The bone carries the vibrations to the cochlea, where they are understood as sound.

When used in SSD, the processor is placed on the affected (worse) side. The vibrations of the skull then can reach the opposite side cochlea and cause a sensation of sound. This helps with awareness of sound on the affected side, but it generally will not help with finding directions of sounds or improve listening in noisy situations. The adhesive adapter sticks to the hairless skin behind your ear. The audio processor snaps onto the adapter. It picks up sound and turns it into vibrations. These vibrations travel through the adapter and into the skull bone. The bone carries the vibrations to the cochlea, where they are understood as sound.

The Benefits

- No surgery needed – It's completely non-invasive.
- Ready to use right away – You can start hearing better immediately.
- Great temporary option – Ideal for people who aren't ready or eligible for surgery yet.



The Benefits of a Hearing Implant

If your implant team decides you're a candidate for a hearing implant, you can expect it is very likely that your hearing will improve*.

An audiologist will adjust your implant system to suit your needs. It may take some time for your brain to get used to the new sounds, but most people notice better hearing within the first few weeks or months after the implant is turned on.



The Joy of Hearing Again

Imagine going through life surrounded by the sounds you love—children laughing, your favourite music, or chatting with friends and family. Hearing these sounds again can help you feel more connected to the world.

Every sound, from rustling leaves to shared laughter, adds meaning to your life. Hearing isn't just about sound—it's about making memories and enjoying special moments with the people who matter most.



Enjoy Conversations Again

It can feel frustrating or lonely when it's hard to follow conversations, especially in noisy places.

With better hearing, you won't need to strain so much to listen or keep asking people to repeat themselves. Whether you're chatting with friends over coffee or joining a group discussion, it becomes easier to stay involved and enjoy the moment.

[*Outcomes with a hearing implant cannot be guaranteed – speak to your implant team about your individual case]





Feel Confident and Stay Social

Better hearing can help you feel more confident to join in and enjoy social activities.

You won't need to avoid family events, classes, or meeting new people. With improved hearing, it's easier to take part in conversations and enjoy being around others. This confidence can even encourage you to try new things and make the most of life's special moments.



Build Confidence in Everyday Life

Good hearing does more than make things easier—it helps you feel more confident and in control.

At home, it helps you stay close to loved ones through clear conversations. At work, it helps you speak up, take on new tasks, and feel more capable. When you hear better with less effort, you can feel more confident in both your personal and professional life.

The Referral Process for a Hearing Implant

You've already had several appointments and hearing tests with your audiologist or consultant. Now that you've been referred to an implant clinic, the team will check if a hearing implant is right for you. This includes the following assessments:

Hearing (Audiological) Assessment

Looks at your hearing history and any past ear surgeries and tests how well you hear now, especially how well you understand speech.

Medical Assessment

Reviews your overall health and any conditions that might affect surgery and may include scans like an MRI or CT to check the shape and health of your hearing system.

Rehabilitation Assessment (Cochlear Implants)

This step makes sure you're ready to take part in a rehabilitation programme after your cochlear implant surgery. You'll also get information about the support available to help you adjust, and the local services that can assist you during your recovery.



The Start of Your Journey

You've completed the referral process and have been approved for a hearing implant—so what happens next?

At your clinic, you'll be given information about the different implant systems available.

Depending on the type of implant recommended and the clinic's practice, most people can choose between two or more options from different manufacturers.

A member of the implant team will help explain the features of each device and how well they match your needs.

Each manufacturer offers different benefits and features. While it's easy to focus on the external processor, remember:

- The internal implant stays with you for life.
- The external processor is usually updated every 5 years or so.

It's normal to feel a bit overwhelmed at this stage—you're not alone!

Take your time:

- Read the information you're given.
- Talk it over with family or friends.
- Reach out to others who already have a cochlear implant and hear how it's helped them.

Next Steps

You are probably thinking...

What comes next?

What can I do to make this journey a success?

What other information is available to me?

Who can I reach out to for support?

Don't worry, information, resources and support are available for you, simply read on...



Hearpeers Mentor Programme

Hearpeers is a group of friendly volunteers who all have different hearing journeys and use different hearing devices.

Hearpeers Website

Visit hearpeers.com to:

- Learn about hearing loss and hearing solutions
- Read real stories from other users
- Ask questions and get answers
- Download helpful resources
- Chat privately with implant users
- Get tips for everyday life with a hearing implant

Hearpeers Events

Hearpeers mentors also host:

- Online webinars
- In-person events

These are great chances to meet others, ask questions, and share experiences.





BeHeard by MED-EL Counselling Service

BeHeard by MED-EL is here to support individuals and families affected by hearing loss, especially when thinking about next steps.

BeHeard by MED-EL offers counselling for:

- Individuals
- Families
- Groups

Counselling can help with the emotional side of hearing loss and support you through the journey.

Common topics include:

- Feeling sad, tired, or lonely
- Changes in identity or lifestyle
- The emotional impact of hearing loss

People with hearing loss are more likely to feel depressed, so getting support is important.

To learn more, visit beheardbymedel.com, scan the QR code, or email us at beheardbymedel@medel.com*



*BeHeard by MED-EL is not intended for crisis situations and urgent needs. In a crisis situation, please call local emergency services.

Three Simple Steps Brochure

At MED-EL, we know that choosing implant surgery is a big decision and can feel overwhelming. That's why we've created easy-to-follow brochures to guide you through the process in three clear steps:

Step 1: The Implant

Learn about the features and benefits of our implants, and what to consider when choosing the right one for you.

You can request a copy of our brochures by scanning the QR code or visiting the website below:

Step 2: The Audio Processor

Explore the different audio processors available, their features, and how they can fit your lifestyle.

medel.com/en-gb/hearing-solutions/cochlear-implants/information-request



Step 3: The Connectivity Devices

Find out how extra devices can help you connect to phones, TVs, and more, making your hearing experience even better.



More Information - Contact Us

To find out more about MED-EL and our hearing solutions, please visit our website medel.com/en-gb

You can also contact us to make an enquiry, simply visit medel.com/contact-med-el or scan the QR code below:



Alternatively, you can reach out to us using any of the methods below:



Telephone: 0330 123 5601



Email: customerservice@medel.co.uk

Social Media

Follow us on Facebook and Instagram where you will find insightful videos, important announcements, behind the scenes stories and inspiring pictures of hearing recipients around the world.

Facebook.com/medel.uk

Instagram.com/medel_global

X.com/medel_uk

Glossary

Anatomy of the Ear

Auditory Nerve: The hearing nerve that sends impulses from the inner ear to the brain.

Bimodal: When you wear a cochlear implant in one ear and a hearing aid in the other ear, this is called bimodal hearing.

Cochlea: The hearing organ – part of the inner ear.

Ear Canal: The passageway between the outer ear and the eardrum.

Eardrum: A thin layer of tissue between the outer and middle ear; also known as the tympanic membrane. It vibrates in response to sound and passes these vibrations to the ossicles.

Hair Cells: Cells in the inner ear that change sound into nerve impulses.

Inner Ear: The part of the ear made up of the cochlea and the balance system.

Middle Ear: The part of the ear that includes the ossicles and the eardrum.

Outer Ear: The part of the ear that is normally visible; also known as the pinna. It collects sound waves and directs them through the ear canal.

Ossicles: The three tiny bones in the middle ear—the malleus, incus, and stapes.

Glossary

Audiology

Audiogram: A graph that represents the results of a hearing test.

Audiologist: A healthcare professional who treats people with hearing loss or an ear disorder.

Audiology: The science of hearing, which is concerned with the diagnosis of auditory and communication disorders; also deals with aural rehabilitation.

Charities & Support Groups

Age UK
Ageuk.org.uk

Auditory Verbal UK
avuk.org

British Cochlear Implant Group
bcig.org.uk

British Deaf Association
bda.org.uk

British Tinnitus Association
tinnitus.org.uk

Cochlear Implanted Children's Support Group
cicsgroup.org.uk

Deaflink
Deaflink.org.uk

Hear Together
Heartogether.org.uk

Hearing Link
Hearinglink.org

Microtia UK
microtiauk.org

National Cochlear Implant Users Association
nciua.org.uk

National Deaf Children's Society
ndcs.org.uk

Royal National Institute for Deaf People
RNID.org.uk

Notes

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