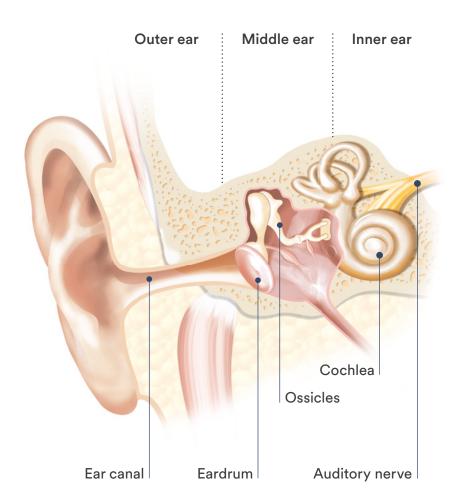


Understanding your child's hearing loss

Sound is important in helping us understand the world around us. It can enrich our experiences of the world and gives your child the possibility to share sound experiences such as laughing, learning, singing, and playing. Understanding your child's hearing loss and possible solutions can encourage them, and you, to reach their full potential.



Hearing loss can affect one or both ears. It can be divided into the following types hearing loss:

- Conductive hearing loss occurs when sound travelling from the outer or middle ear is blocked from reaching the inner ear (cochlea).
- Sensorineural hearing loss occurs when the inner ear is damaged and struggles to interpret sound. If one ear is affected with profound hearing loss while the other ear has normal hearing, it is known as singlesided deafness (SSD).
- Mixed hearing loss refers to a combination of conductive and sensorineural hearing loss.

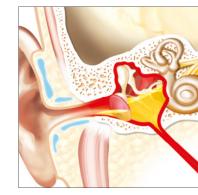
Bone conduction hearing is indicated for and can benefit people with conductive hearing loss, mixed hearing loss or SSD. Common conditions that can cause these types of hearing loss include:



Atresia and/or microtia



Cholesteatoma



Chronic otitis media



Otosclerosis

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How bone conduction connects your child to sound

Treatments for hearing loss need to be both effective and work in harmony with your child's everyday life. There are different treatment options that work and help your child in different ways, and maybe you've already tried one. Bone conduction works differently.

Hearing aids might be uncomfortable, and your child may have experienced chronic ear infections, eczema or itchiness wearing them.

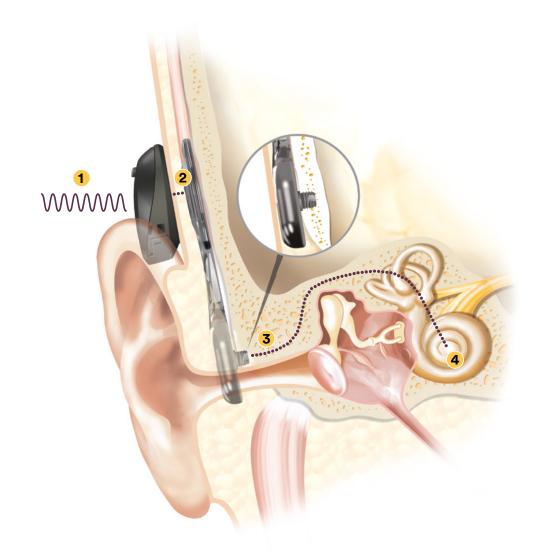
Reconstructive surgeries are sometimes necessary to treat ear infections and other problems but may have still left your child with hearing loss.

Non-surgical bone conduction solutions, such as Baha Start, are a great first step into hearing via bone conduction, however, by now your child may be ready to move on to a hearing implant that could further improve their hearing.⁴ They may also prefer the discreetness of an implantable system.

A bone conduction system bypasses blocked parts of the outer or middle ear and sends vibrations directly to your child's inner ear. It uses a small sound processor placed on the side of the head, leaving the ear canal open. This may alleviate some side effects or difficulties that wearing hearing aids can cause, such as an increased risk for ear infections. Bone conduction system surgery also won't cause any loss of the remaining hearing your child may have.

A hearing implant is a more effective and permanent solution⁵ than the non-surgical Baha Start. A study showed that an implant provides a higher-quality signal compared to a Softband and that this can promote long-term academic, social, and vocational benefits in addition to immediate improvement in communication.⁶ The study also reported that an implant improves the recognition of familiar words and the speed of learning new words.⁶

Cochlear bone conductions solutions have helped thousands of children with hearing loss, all over the world, to hear and communicate.



- 1 The discreet sound processor sits just off the ear where it captures sound in the air and analyzes the signal.
- 2 The processed sound signal moves through the skin to the OSI300 Implant. The implant sits fully under the skin.
- The transducer generates sound vibrations, which cannot be felt, and sends them through the BI300 Implant to the bone.
- The vibrations travel to the inner ear where they are converted into electrical impulses as part of the natural hearing process and sent to the brain to be interpreted as sound.

A hearing solution designed to work for your child

The Cochlear Osia System uses the principle of bone conduction to send sound through the bone to your child's inner ear. It is made up of two parts, each with technology designed to help your child hear and communicate: the Osia 2(I) Sound Processor and the active OSI300 Implant that is attached to the small BI300 implanted into the bone.



Piezo Power™ transducer

The Osia System is unlike any other system. It's unique Piezo Power™ transducer is able to deliver high power especially in the high frequencies—which is important for understanding speech in noisy environments.8





vibrations are created in a transducer that sits inside the implant.

vibrations that deliver a clear and natural sound experience. It is also the first and only active bone conduction system enabling MRI at 3.0 T without the need for magnet removal, implant removal, or head wrap.*

* Cochlear Osia implants are MR Conditional, meaning they have demonstrated safety in the Magnetic Resonance Imaging (MRI) environment within defined conditions. Always read the instructions for use and discuss with your doctor before undertaking any MRI procedure.

More power, better hearing

A natural hearing experience

Packed full of power, the Osia System can give your child access to a broad and dynamic range of sounds. **A broad and dynamic range of sounds** helps your child hear subtle nuances, and a clear contrast between soft and loud sounds makes for a more natural hearing experience.⁹

Understand speech in noise

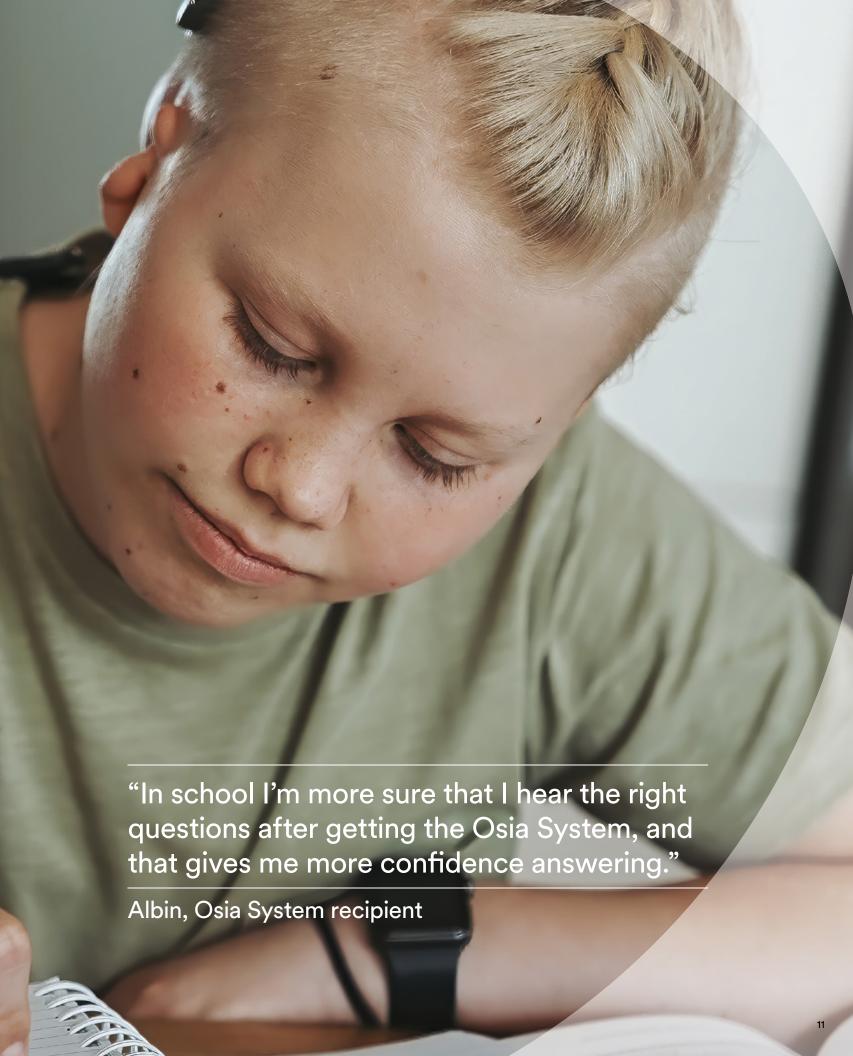
The Osia System's unique technology is optimized to deliver high power and clarity, especially in high-frequency sounds, which are important for hearing what others are saying. A large dynamic range has been shown in studies to improve the ability to understand speech in noise.¹⁰

Helping more people hear longer

The Osia System has a fitting range of up to 55 decibel (dB) hearing loss. That means that it can help people who have higher levels of sensorineural hearing loss. And if your child's hearing loss is at a more moderate level today, the Osia System's powerful fitting range helps provide more room should it worsen over time.

SmartSound® iQ technology

The Osia System features SmartSound® iQ technology that is designed to help your child hear better in different situations they might find themselves in during the day. With SmartSound iQ signal processing, their sound processor automatically identifies their environment and adjusts, aiming to deliver a clear signal to optimize your child's hearing experience—whether that's playing with friends or walking with you to the park.



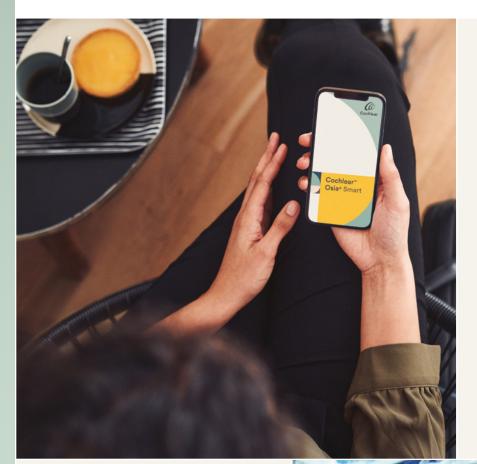
Easy to use, easy to love

The off-the-ear Osia 2(I) Sound Processor* is comfortable to wear and easy to use. It offers different connectivity options, like direct streaming and wireless device compatibility, so your child is able to stay connected with the world around them.



^{*}The Osia 2(I) Sound Processor is only compatible with the OSI300 Implant and have the same performance and connectivity± as the Osia 2 Sound Processor (SmartSound IQ, Made for iPhone, connection to Cochlear True Wireless™ devices and Osia Smart App). The diff erence between the current system and the new system is the MRI access.

Read more about the Osia 2(I) Sound Processor on www.cochlear.com.



Smartphones have become essential tools used to connect with friends and family. With Made for iPhone technology, the Osia System becomes a simple extension of these devices, streaming sound directly to their sound processor from any compatible Apple® device. For Android™ and other smartphones, they can stream using our Cochlear True Wireless™ Phone Clip.

The Osia Smart App lets you or your child control and adjust their sound processor easily and discreetly from a smartphone or Apple Watch[®].[†] They can tune the sound the way they want to hear it, and you can even monitor their status and settings.



The Aqua+ accessory is a silicone casing that covers your child's sound processor so they can join in the fun with water activities alongside family and friends. With an Aqua+ accessory, the Osia Sound Processor is water resistant down to almost 10 feet.**



^{**} The Cochlear Osia 2 and 2(I) Sound Processors with Aqua plus are dust and water resistant to the level of IP68 of the International Standard IEC60529 when used with LR44 alkaline or nickel metal hydride disposable batteries. This water protection rating means that the sound processor with the Aqua+ can be continuously submerged under water to a depth of up to 3 meters (9 feet and 9 inches) for up to 2 hours. Refer to the relevant User Guide for more information.

[†] For information regarding the compatibility of Cochlear's Sound Processors with Apple or Android devices, visit www.cochlear.com/compatibility.

Cochlear's range of Smart Apps and Support Apps are available on App Store and/or Google Play. For information regarding the sound processors, operating systems and devices that are compatible with the Cochlear's range of Smart Apps and Support Apps, visit www.cochlear.com/compatibility.

Made to last

When you and your child choose a hearing solution from Cochlear, you make a commitment to us, and we make a commitment to you. Your child not only needs their hearing device to be effective, they also need it to be reliable.

Demonstrated reliability

The Osia Implant has demonstrated 99.92% reliability since its release¹¹, and accelerated lifetime testing has demonstrated consistent performance for the Piezo Power transducer over time.¹² This reliability is partly due to the design of the transducer, which has a completely different design than traditional bone conduction transducers and is well suited to deliver long-term performance and durability.¹³

The surgery

The Osia Implant has a slim profile and is fixed to a stable osseointegrated implant that fuses to the bone, which is backed by more than 10 years of published clinical research.^{14,15}

The procedure can take as little as 30 minutes¹⁶, and most patients can go home the same day. The surgery won't cause any loss of remaining natural hearing that your child may have in their ear.

MRI compatible

Many people need an MRI scan at some point in their life. With the OSI300 Implant, your child is able to undergo high-resolution MRI scans at 1.5 and 3.0 T strength with the magnet in place and without the need to surgically remove their implant or magnet.[‡] Testing shows that the performance of the Piezo Power transducer remains consistent after MRI exposure.^{17,18}

The Osia Implant has demonstrated 99.92% reliability since its release."

‡ Cochlear Osia implants are MR Conditional, meaning they have demonstrated safety in the Magnetic Resonance Imaging (MRI) environment within defined conditions. Always read the instructions for use and discuss with your doctor before undertaking any MRI procedure.



It's time for them to hear what they've been missing

The World Health Organization (WHO) has said that disabling hearing loss can lead to feelings of loneliness, isolation and frustration. No matter how old your child is, if they have disabling hearing loss, WHO recommends early intervention and treatment.¹⁹

Steps to help give your child access to better hearing:



Step 1: Hearing evaluation

You and your child will meet with a hearing health professional where your child will complete a hearing test. Maybe your child has a Baha Start solution already and knows how our hearing technology sounds and works. If not, if your child is eligible for the Osia System, they'll be able to trial bone conduction hearing with Baha Start – a way of experiencing bone conduction without surgery.



Step 3: Outpatient surgery

If your child is ready and old enough** for an implantable solution, the procedure is fairly routine and typically lasts less than an hour. The risks of implant surgery are typically low and most children are back to their normal activities within a few days.



Step 2: Obtain insurance approval

Unlike hearing aids, bone conduction implant systems are typically covered by Medicaid and most insurance plans.* The hearing implant team, your child's audiologist, or in some cases Cochlear's Insurance Services team, may submit the necessary paperwork to your insurance company to start the approval process. For more information, visit



Step 4: Activate your child's Osia System

www.cochlear.com/us/insurance

About four weeks after surgery, you and your child will meet with your audiologist to have their sound processor fitted. It will be adjusted to match your child's hearing needs, and together, you'll be shown how it works. Just like that, your child's world will open up through sound.

^{*} Coverage for Medicaid recipients varies according to state specific guidelines. Contact your insurance provider or hearing implant specialist to determine your eligibility for coverage.

^{**} In the United States and Canada, the Osia System is cleared for children ages five and older.

"I could hear new sounds I couldn't hear before"

Albin was born with a condition called microtia/atresia that caused conductive hearing loss in both of his ears. His parents knew that hearing loss could affect their child's learning and social life as he grew up, and they decided to act quickly to give Albin access to sound.

Ronny, Albin's father, remembers Albin's first time hearing with a Cochlear Baha® sound processor on a Softband at only two weeks old: "The first reaction we saw from Albin when he was fitted with Baha Start, was that he opened his eyes and looked at us, and that was just amazing."

In all twelve of his years, Albin hasn't known a life without access to sound. "I think having a Baha [device] since I was a baby has made my childhood quite normal, not being excluded because of hearing loss," he said.

Albin later got the Cochlear Osia System, and he noticed an improvement to his hearing right away. "My first reaction was I could hear new sounds I couldn't hear before," he said. "For example, I heard our fridge."

"For me, getting an Osia System has been really good," he added. "The sound is so much better and clearer. And I have already planned for my second one on the left side."

In his spare time, Albin enjoys training martial arts. "I have many friends there, and it's fun to hang together," he said. And the Osia System doesn't get in the way of his exercise. "The sound processor is just there; I don't feel it when I'm doing fun stuff."

With the Osia System, Albin is more prepared to jump into questions at school, as well as conversations with groups of people around him. "In school I'm more sure that I hear the right questions, and that gives me more confidence answering."



Questions to ask your child's hearing health professional

To help you prepare for your child's activation day, we've compiled a list of questions to ask your child's hearing health professional.

- What happens during the appointment?
- What does programming the sound processor feel like?
- Will my child hear right away?
- How will it sound?
- How long will it take for my child to adjust to the new sound?
- How do I put on my child's device, and can they put it on themselves?
- How does it work?
- What tips do you have for using the new device?
- How often will we need to change the battery?
- How do I store and care for my child's device?
- What happens if my child's hearing changes over time?
- Is there a network of families of bone conduction solution recipients that I can connect with?

Notes			

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Cochlear Care

Providing a lifetime of support when and where you need it.



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By activating your free Cochlear Family account, you'll have personalized access to tips, tools and resources. You'll connect with other Cochlear Family members, and you'll enjoy the peace of mind that comes from knowing we're with you every step of the way.

Visit www.cochlear.com/us/family



Anytime, anywhere access to important information with myCochlear

As part of the Cochlear Family, you will have access to a convenient online resource called myCochlear. Your myCochlear account provides you with information about your specific device, including warranty and upgrade information, troubleshooting tips, as well as special promotions.



Cochlear Concierge can answer your questions

A team of experts is ready to answer your questions and assist you in learning about the process, our products, technology and company.

Call 800 216 0228 or email concierge@cochlear.com



Insurance process support and direct insurance billing

You will have access to our specialized team that can help you obtain insurance approval or support appeals when coverage for one of Cochlear's implantable hearing solutions has been denied. In addition, we offer direct billing services to your insurance company for upgrades to help make the payment and insurance claim process easier.

Visit www.cochlear.com/us/insurance



Fast service with Hear Always

Your clinic and Cochlear want to make sure you experience sound uninterrupted, which is why we partnered on the exclusive Hear Always program. Hear Always ensures expedited replacement of your sound processor if you are ever without sound.



Robust hearing therapy resources on the Communication Corner

The Communication Corner is our extensive hearing therapy website which provides materials and activities for all levels to help you improve your listening and communication skills. It includes a range of practice tools, as well as an assessment that provides guidance on where to start and which program is best for you.

Visit www.cochlear.com/us/commcorner



Get quality care anywhere with Cochlear Remote Care

Cochlear Remote Care solutions offer simple and convenient ways for your hearing health professional to support you without a clinic visit. Using your compatible smartphone*, you can access care where and when it's convenient for you—whether you're at home, at work, or away.

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^{*}The Cochlear Osia Sound Processor is compatible with Apple devices. The Cochlear Osia Smart App is available on the App Store. For compatibility information visit www.cochlear.com/compatibility.

Hear now. And always

Cochlear is dedicated to helping people with moderate to profound hearing loss experience a world full of hearing. As the global leader in implantable hearing solutions, we have provided more than 700,000 devices and helped people of all ages to hear and connect with life's opportunities.

We aim to give people the best lifelong hearing experience and access to next generation technologies. We collaborate with leading clinical, research and support networks to advance hearing science and improve care.

That's why more people choose Cochlear than any other hearing implant company.

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Please seek advice from your health professional about treatments for hearing loss. Outcomes may vary, and your health professional will advise you about the factors which could affect your outcome. Always read the instructions for use. Not all products are available in all countries. Please contact your local Cochlear representative for product information.

Views expressed are those of the individual. Consult your health professional to determine if you are a candidate for Cochlear technology.

In the United States and Canada, the Osia System is cleared for children ages five and older.

The Cochlear Osia Sound Processor is compatible with Apple devices. The Cochlear Osia Smart App is available on the App Store. For compatibility information visit www.cochlear.com/compatibility.

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