

Hearing Implants and the Classroom

A Guide for Teachers

From the First Day

Teaching pupils with different learning styles can be a challenge, but it's one of the things that makes your work interesting. When you found out that you'd have a pupil with a hearing implant, you may have wondered if you're prepared for this. What kind of support do children with hearing implants need? How can you create the best possible learning conditions for this pupil—and for everyone in your classroom?

If you're trained to work with children with hearing loss, then you'll be able to apply many of the principles you already use. If you don't have any experience with hearing implants, such as a cochlear implant or bone conduction implant, don't worry. By learning a few straightforward strategies, you'll be able to provide support when

it's needed and continue to manage your classroom well.

What can you expect from this guide? First we'll have a look at how hearing implant systems work. We'll discuss how you can encourage your pupil's academic skills and overall growth. You'll learn to anticipate situations that might present an extra challenge and how to spot any signs that the hearing implant isn't working. We'll also show you some simple ways to improve classroom acoustics.

You'll see that with some basic technical information, a little practice, and regular communication with your pupil's parents, you'll have everything you need to create a positive learning environment for your whole class.



Hearing Implant Systems

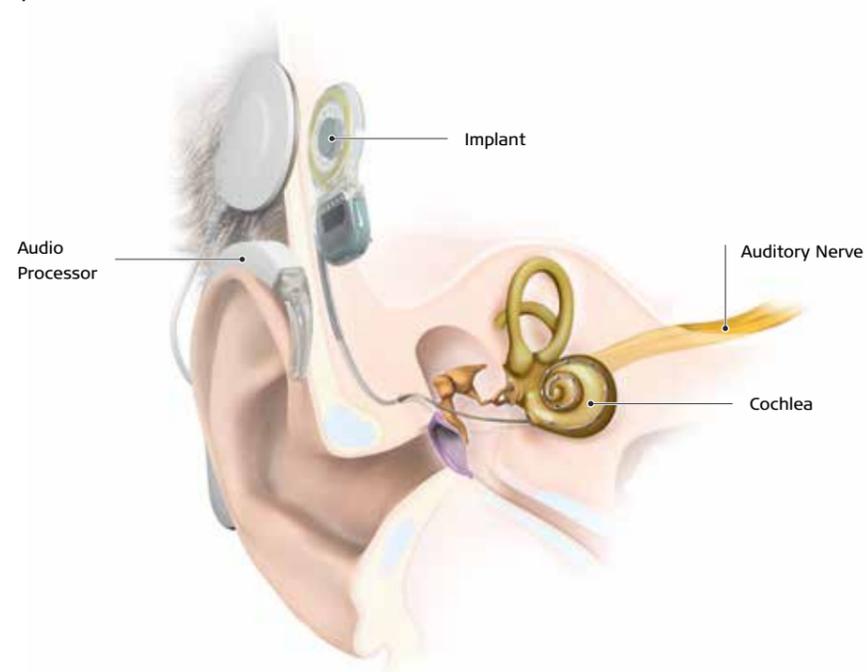
Tools for Learning

You may be familiar with hearing aids, but what are hearing implants and what can they do? For many people with hearing loss, hearing aids don't provide enough benefit. This is usually where hearing implants come in.

A hearing implant system is a medical device that provides access to sound for people who have mild-to-profound hearing loss and can't wear hearing aids. There are different types of hearing implants for different kinds of hearing loss.

Each works in one of four ways: electrical stimulation, bone conduction, mechanical vibration, or a combination of electrical stimulation and acoustic amplification. Below we'll take a brief look at what all of them have in common.

Hearing Implant System



Most hearing implant systems have two main components—an external audio processor and an internal implant. The audio processor is worn on or off the ear and picks up sound in the environment. It's the part that your pupil handles every day and may think of as his "ear."

The audio processor is attracted to the implant by a magnet. The implant is positioned just under the skin and isn't visible. The hearing implant system only works when the audio processor is turned on and connected with the implant.

Hearing with a hearing implant is different than natural hearing; however, hearing implants have provided hundreds of thousands of children with hearing and have helped them gain access to mainstream educational opportunities.



Watch our videos to find out how a hearing implant works www.medel.com



Hearing Loss and Early Development

As you may know, your pupil's experience with a hearing implant is influenced by many factors. His type and degree of hearing loss, his age at implantation, the mode of language he uses (spoken, signed, or both), and the amount of practice he's had will all shape his progress.¹ His family's expectations, and yours, are also really important. While you won't be able to influence all of these aspects, there are several ways you can encourage and support your pupil every day.

It's important to remember that your pupil's cognitive and language skills might be affected by his hearing loss and his hearing implant. Your pupil may not have had any auditory input for several months or more before he received his implant, so his auditory skills may be less developed.

Although he can now access sound, the auditory information he receives through his implant may

not be as full and clear as the sound that most of us hear. Because of these factors, children with most types of hearing implants have to work harder on their speech perception, speech production, and phonological skills.

Despite these challenges, children who receive intervention during the sensitive period for language development often catch up with their peers. Many read at grade level and achieve speech skills and grades that are just as strong as those of their peers.^{2,3} Children with hearing implants are going to mainstream schools in increasing numbers, and they're much more likely to thrive when teachers and support staff are attentive to their needs.¹ We've seen, and research has shown, that with ongoing support from parents, clinicians, and educators like you, these children are doing well at home, in school, and beyond.

Creating Conditions for Success

You'll soon get a sense of your pupil's learning style, and the training and experience you already have will guide you in making simple adjustments to lesson plans. In the meantime, what are the most meaningful things you can do to support your pupil? First, learn the basics of operating your pupil's audio processors. Second, be aware of distractions and background noise. Minimise them whenever possible. Finally, keep in contact with your pupil's parents and the therapists who support his development.



Audio Processor Basics

Whether or not you have a knack for technological devices, it'll be very helpful to know some audio processor essentials. If your pupil is too young to handle his processors, he'll rely on you and other teachers while he's at school. But don't worry. An audio processor is no more difficult to work than a mobile phone, and your pupil's parents will gladly give you a crash course in the basics. Consider asking them for a spare user manual, which you can reference for more detailed information throughout the school year. Until then, this guide should be enough to get you started.

Overview

An audio processor is a battery-operated device. Your pupil's hearing implant system works when the audio processors are activated (turned on and connected to the implant) and the batteries are charged and properly inserted. Keep in mind that if your pupil's audio processors fall off, he won't be able to hear until the processors have been put back on.

Batteries

The audio processor batteries will most likely outlast the school day, depending on the processor model and your pupil's usage habits. To prevent your pupil from ever missing out on a lesson, you may want to ask the parents to provide you with backup batteries. If you do change the batteries for your pupil, avoid touching the battery contacts inside the battery pack frame.

Notifications

Most audio processors have alert functions such as indicator lights and acoustic signals. These features are designed to indicate that the processor is functioning properly. Your pupil's parents may have had these signals deactivated because they don't want their child's processors continually flashing or beeping. In such cases, the parents may devise their own methods for checking processor function. Alert signals vary from processor to processor, so check with the parents about the particulars of your pupil's processors.



Want more tips on audio processor handling? You'll find troubleshooting tips and more on [medel.com](https://www.medel.com).

Daily check

Especially if you have a young pupil, you may want to check the audio processors daily and learn how to spot signs that the devices aren't working. If your pupil seems less attentive than usual or isn't responding to instructions or questions, empty batteries may be the culprit. If he ever resists wearing his processors, this could be a sign that they aren't working properly or that there's a problem with the audio processor program. Discuss any concerns with the audiologist, if available, or the parents.

Other considerations

Find out whether your pupil's processors are water-resistant, waterproof, or neither. If the processors aren't protected against water and they get wet, they will likely get damaged. Take a few extra precautions if your pupil is involved in sports. Before swimming lessons or other water activities, remove the processors or use a waterproof accessory. Make sure he wears a helmet before playing sports that typically require one.

Preschoolers

If you teach preschool and your pupils take a nap at school, you'll want to help him with one extra step. To prevent damage to his processors, help him remove them before he lies down. Store the processors in a safe place. Note that if your pupil has bilateral hearing loss (hearing loss in both ears), he won't be able to hear much, or anything at all, when he's not wearing his processors. Your pupil and his parents probably have a night-time routine for removing the processors, so the parents may be able to share some tips about easing this transition.



In the Classroom

You're already used to adapting your teaching strategies and lesson plans to accommodate your pupils' needs. What more can you do? Below are several classroom management tactics and other tips that are particularly suited for children with hearing loss. You probably already use some of these, and none will hamper the other pupils' learning. Some approaches may even help everybody.

Classroom management:

- Speak clearly.
- Use visual aids to reinforce what you teach.
- Announce new topics on the whiteboard.
- Encourage your pupil to let you know when he hasn't heard or understood.
- Don't assume that your pupil will let on when he hasn't understood.
- Check understanding by having your pupil rephrase what's been said.
- Write down important information, such as homework assignments and due dates.
- Seat the child close to the spot where you do most of your teaching.
- If you play an audio recording, provide the pupil with a transcript.
- Before you show a video, offer a short summary. Use closed captioning.
- Avoid raising your voice unnecessarily. Raised voices and shouting distort speech and can impede understanding.
- Seat noisy pupils away from their peer with a hearing implant.
- Encourage questions.
- In case your pupil sometimes relies on lip reading, avoid standing directly in front of a light source when you talk.



Questions & Answers

My pupil has an implant for just one ear.

Does this mean he can hear with only one ear?

Most likely. If you're not sure whether your pupil has binaural hearing loss (hearing loss in both ears) or single-sided deafness (hearing loss in only one ear), your pupil or the parents will be able to tell you. Hearing with only one ear takes additional mental resources, so children who can hear on only one side tend to have more difficulty concentrating and knowing where your voice or any other sounds are coming from.



Improving acoustics:

- Attach felt or rubber to the bottom of chair legs to muffle the scrape of chairs being moved around.
- Place rugs around the room to absorb sound.
- Hang curtains to absorb sound and minimise reverberations.
- Close the classroom door to block noise from the corridor and other rooms.



Working Together

Together with your pupil's parents and the rehabilitation professionals who support him, you'll play an essential role in ensuring he's coping well with school.³ You can build the fullest possible picture of his strengths and challenges by working with his parents, speech therapist, audiologist, and other support staff throughout the school year.

Partnering With Parents

While you're preparing for the upcoming school year, we encourage you to set up a meeting with your pupil's parents. They'll be able to familiarise you with audio processor basics and they can pass on specific information about their child's academic needs and abilities. Often, the parents have been accompanying their child to therapy sessions and, ideally, working on therapy goals at home, so they'll have insights about their child's learning style. In turn, you can inform the parents of any changes in your pupil's behaviour or attention.

Throughout the school year, the parents should let you know when their child's audio processor program changes. The program affects the way a hearing implant user processes and hears sound. An audiologist will periodically reprogram your pupil's processor so he hears as well as possible, but these programming changes can initially impact your pupil's ability to process lessons and pay attention.

Professional Support

Your pupil's audiologist, speech therapist, and teacher of the deaf are also invested in your pupil's development, and can be very helpful in many aspects. When it comes to technical questions and audio processor functioning, the audiologist will be an expert resource. The audiologist can also relay updates about changes to your pupil's program.

You and your pupil's speech therapist or teacher of the deaf can collaborate by identifying

opportunities to merge lesson plan objectives and therapy session goals. The speech therapist might inquire about the content of your lesson plans; she may be able to integrate vocabulary words and other curriculum targets into therapy sessions. She'll assess—and may volunteer to discuss—your pupil's linguistic and communicative skills. These insights may influence what you decide to reinforce with classwork or homework.

Improving the Listening Experience

Which sounds do you find the most distracting? The ringing of your mobile phone? The hum of traffic? For a child with a hearing implant, background noises can be particularly troublesome. In order to focus on important sounds, your pupil probably uses assistive listening devices (ALDs) with their hearing implant in certain situations. That means that you'll want to get to know ALDs too.

Assistive Listening Devices

ALDs are devices that make it easier to focus on a particular sound source, such as music, a movie, or a teacher's voice. They can help people with any degree of hearing loss. Because hearing loss is so common, many public places—such as cinemas,

banks, and taxi cabs—have hearing assistive technology available in place. Find out if your pupil or your school has one of the following types of hearing assistive technology available.



FM Systems

FM systems are portable wireless ALDs that provide clear sound input, even from across a room. These systems have two parts—a microphone transmitter and a receiver.

To use an FM system, you would wear the remote microphone on your clothing while your pupil will wear a small receiver. When other pupils present to the class, they should also use the remote microphone. This type of system is a good choice for classroom use, because it's simple to use and it's unlikely to cause interference.



Neckloops

A neckloop uses telecoil technology to wirelessly transmit sound to the wearer's audio processor. A neckloop may be able to directly connect to audio devices, or may enable wireless streaming from a remote microphone.

To use a neckloop in the classroom, you would clip a remote microphone onto your clothing while your pupil wears a neckloop. Once he turns on the telecoil setting of his audio processor, he can focus more easily on your voice, which is picked up by the microphone. Presenting pupils and other speakers should also use the remote microphone. Note that other electronic devices can cause distracting interference with neckloop systems.





Raising Expectations

Now you know how to check your pupil's audio processor. You've learned how to recognise and minimise noisy distractions in the classroom. You've had a crash course in ALDs and you've read about the other professionals that will help shape your pupil's hearing and learning experiences. What more can you do to support your pupil's success?

When you set high expectations for your pupils while providing all the tools and support they need, they're much more likely to tackle difficult tasks. Children with hearing implants and children with typical hearing are much more alike than different, so hold the same high expectations for

your pupil with hearing loss. Acknowledge his unique strengths and challenges. Be flexible.¹ Not everything we've discussed here will apply to your pupil, so trust your instincts.

Some pupils do so well that teachers may forget that children with hearing implants don't perceive sound in exactly the same way as the rest of us.^{1,3} Keep in mind that without your pupil's audio processors, he'll be able to hear little or nothing. With them, he'll still benefit tremendously from your ongoing support, your patience, and periodic evaluation by you and other professionals.

Looking Ahead

For more than thirty years, hearing implants have been giving access to sound and speech to children who otherwise wouldn't be able to hear a school bell, let alone a whisper.³ They've expanded educational and social opportunities by making it possible for more of these children to learn in a mainstream classroom and attend school closer to home.

As an educator, you'll play an instrumental role in your pupil's academic journey and lifelong personal growth. We hope this guide has given you insight into the experience of learning for a pupil with a hearing implant, and we wish you a productive and successful school year ahead. If you have any questions, or would like to request educational materials for your classroom, please contact us—we look forward to hearing from you.

References

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