

New Hampshire's Resource Book

for families with children who are deaf or hard of hearing

Produced by:

Northeast Deaf and Hard of Hearing Services in conjunction with
New Hampshire's Department of Health and Human Services

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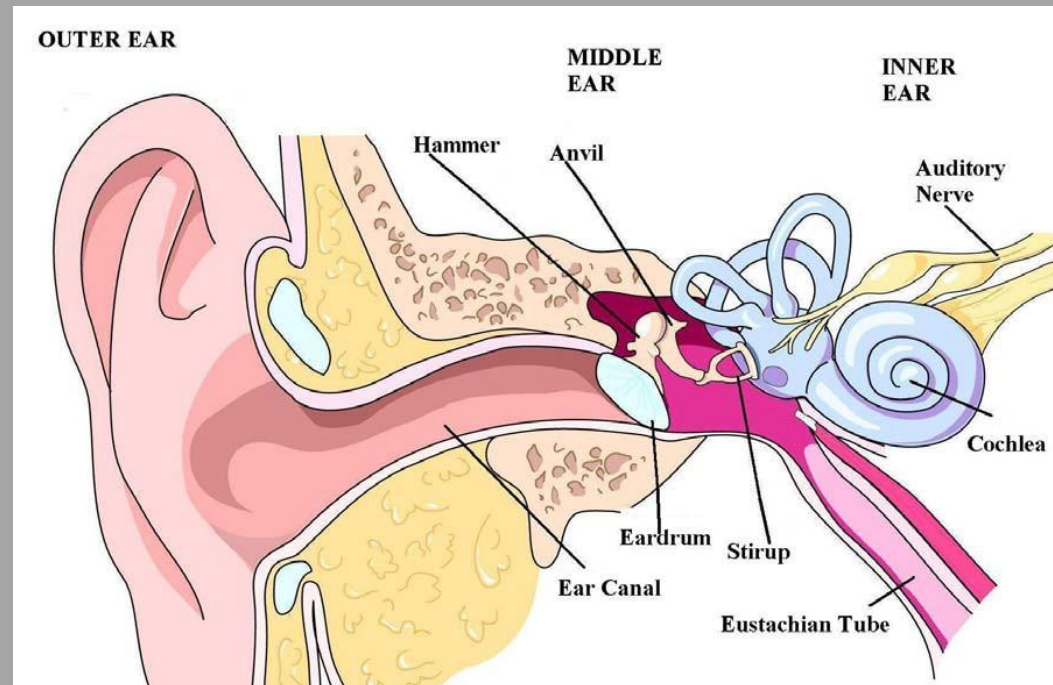
Introduction and Welcome

This book is intended to be a comprehensive resource for families of children who have been identified as deaf or hard of hearing. You may want to understand more about the ear and hearing loss, communication and language development, early intervention programs, about the impact of your child's hearing levels on his/her education, and how your child can get the support he/she needs throughout the school years. We hope it provides you with one place to obtain some answers to your questions and about resources that can support you through this journey.



Auditory System and Hearing Loss

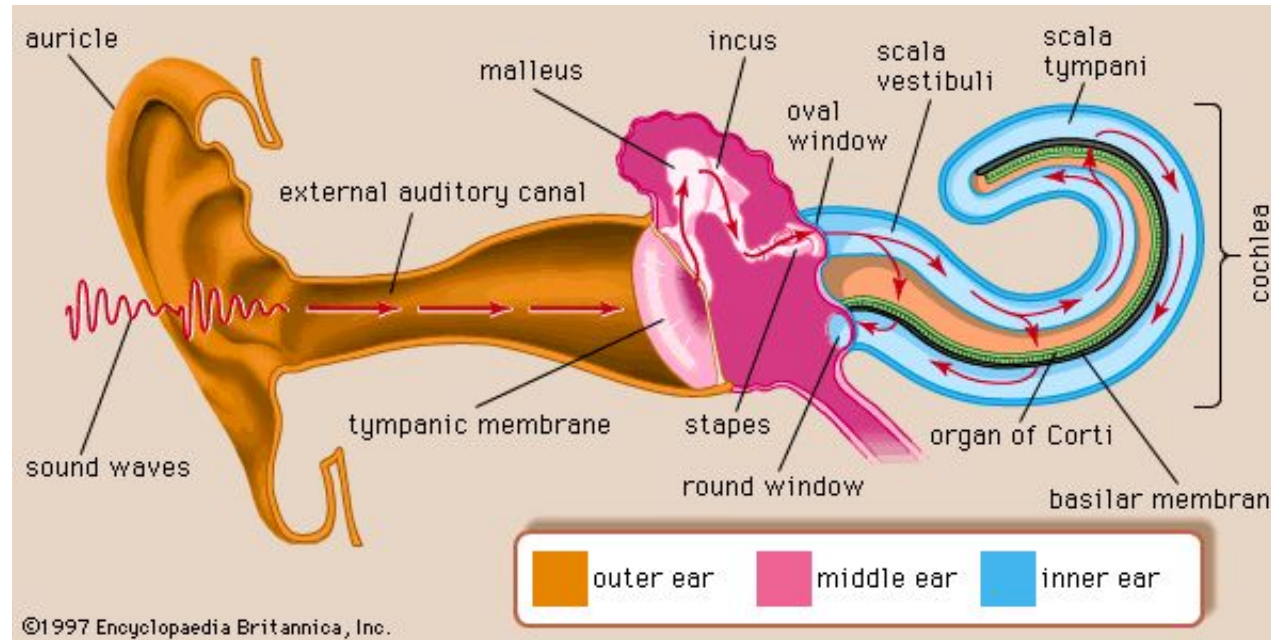
This section will provide you with information to assist in developing an understanding of the auditory system and of hearing loss. Any time part of the auditory (hearing) system is not working properly, a hearing loss can result. The auditory system includes the outer ear, middle ear, and inner ear. The illustration below shows the parts of the ear and the important components of each.



How We Hear

Outer Ear:

- The auricle, the largest part of the ear that is visible to you, captures sound waves that move into the ear through the ear canal.
- The tympanic membrane (ear drum) separates the outer ear from the middle ear.
- Sound waves will cause the tympanic membrane to vibrate which passes the vibrations through to the middle ear.



Middle Ear:

- The middle ear is an air-filled cavity that houses the three smallest bones in the body: the malleus, incus, and stapes
 - also called the hammer, anvil, and stirrup
- Air waves move through these bones, sending vibrations through the oval window, which separates the middle ear and the inner ear into the fluid-filled inner ear.

Inner Ear:

- The inner ear consists of the cochlea (the organ of hearing) and the auditory nerve and is filled with fluid.
- The vibrations that come through the round window move the fluid, which causes hair cells in the cochlea to move.
- This creates electrical energy that then stimulates the auditory nerve, which carries the signal to the brain for interpreting and understanding the sound. We recognize this as hearing.

Types of Hearing Loss

There are three types of hearing loss that can occur:

Conductive Hearing Loss

Sensorineural Hearing Loss

Mixed Hearing Loss

In addition, a condition called **Auditory Neuropathy Spectrum Disorder (ANSD)** that affects reception and understanding of auditory information, will be explained in this section.

Conductive Hearing Loss

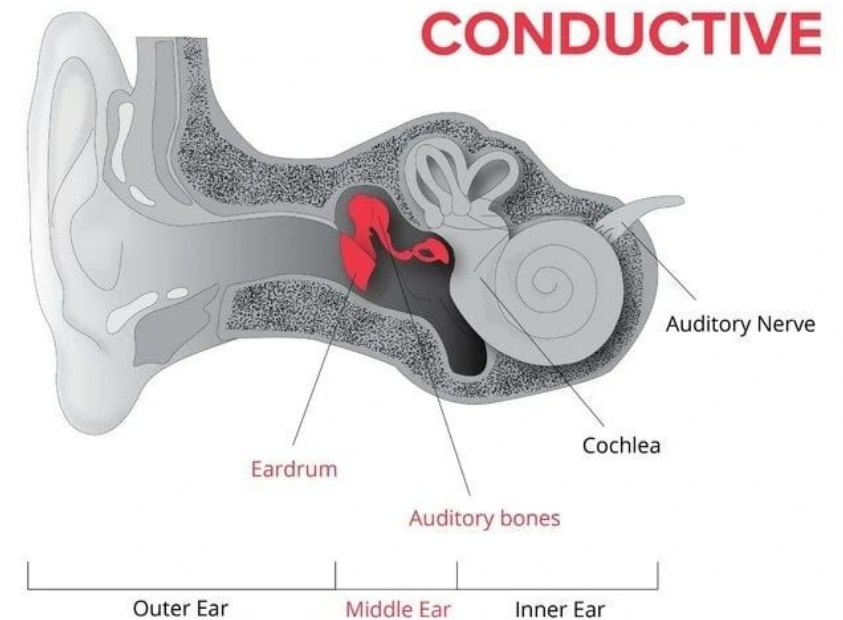
A conductive hearing loss is due to a problem with the ability of sound waves to move through the outer ear to the middle ear, or both.

Causes:

- Build-up of ear wax in the outer ear
- A hole in the ear drum
- A problem with any of the tiny bones in the middle ear
- Microtia: smaller or no outer ear
- Atresia: underdeveloped or no ear canal
- Fluid in the middle ear

A conductive hearing loss can often be treated medically or surgically, resulting in improvement or restoration of hearing levels. One common procedure in children is the placement of tubes in the eardrum in order to address the problem of fluid in the middle ear and the resulting conductive hearing loss.

When a person has a conductive hearing loss, the volume of sound is decreased or muffled. A conductive hearing loss can be intermittent.



<https://www.lemmeaudiology.com/resources/>

Sensorineural Hearing Loss

Unlike a conductive hearing loss, a sensorineural hearing loss is permanent. **A sensorineural hearing loss exists when a hearing problem occurs in the inner ear.** Sensorineural hearing loss is the most common type of hearing loss.

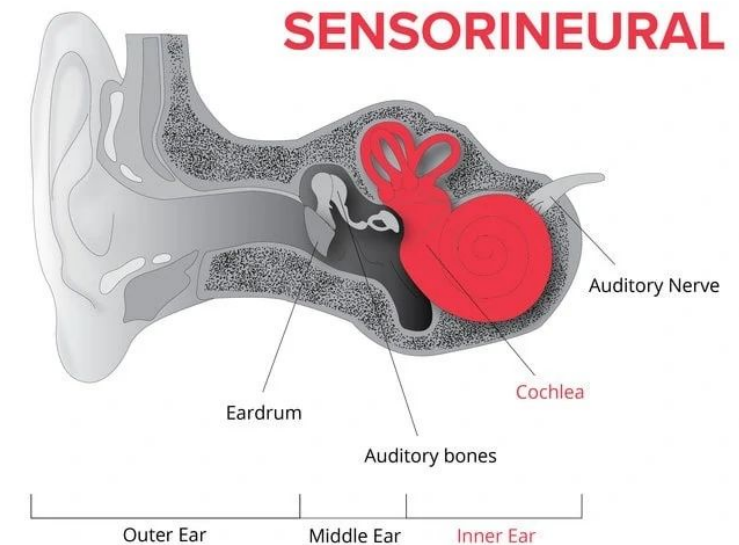
Causes:

- Prenatal infections
- Genetics
- Lack of Oxygen at birth
- Certain Medications (Ototoxicity)
- Congenital Problems
- Head Trauma
- Increased risk with some medical conditions (e.g. Diabetes)

There is no treatment to reverse a sensorineural hearing loss.

When a person has a sensorineural hearing loss, both the volume and clarity of the sound are reduced.

Hearing Aids or a Cochlear Implant may be recommended for a young child with a sensorineural hearing loss. While these can be beneficial to the child, they do not restore the child's sensorineural hearing loss.



<https://www.lemmeaudiology.com/resources/>

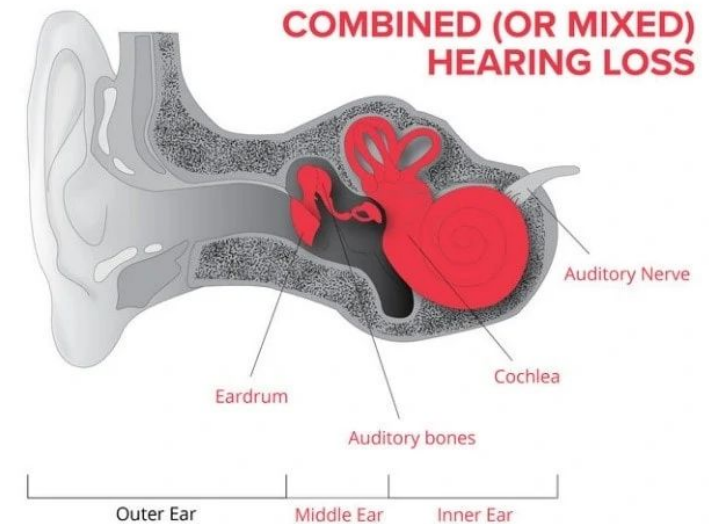
Mixed Hearing Loss

Children can have a combination of damage in both the outer/middle ear as well as the inner ear. **The presence of both a conductive hearing loss and a sensorineural hearing loss is called a mixed hearing loss.**

Examples:

- If a child with a sensorineural hearing loss has a middle ear infection and fluid in the ear, they may also have a conductive hearing loss.
- If a child with Microtia has an underdeveloped outer ear, causing a conductive hearing loss, and experiences a head trauma which results in inner ear damage, they may also have a sensorineural hearing loss.

With a mixed hearing loss, there are two separate hearing losses to consider. The conductive hearing loss may be treated medically or surgically to improve hearing levels. For a sensorineural loss, hearing aids or cochlear implants may be recommended.



<https://www.lemmeaudiology.com/resources/>

Auditory Neuropathy Spectrum Disorder (ANSD)

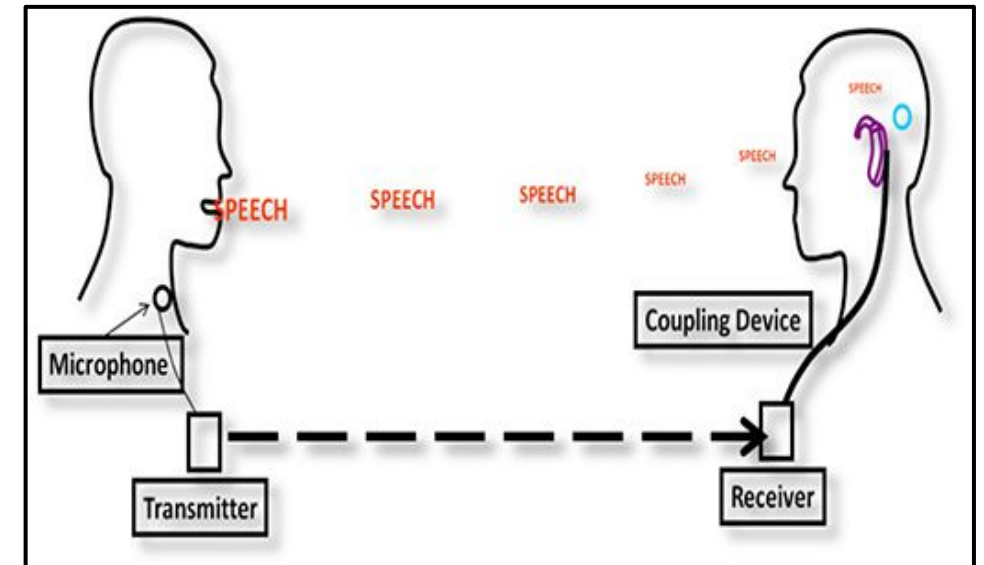
ANSD is a condition in which the cochlea receives sound, but the signal to the auditory nerve, or from the auditory nerve, to the hearing center in the brain is disorganized or not processed as it should be.

The causes of ANSD are unknown; however, there are some identified risk factors:

- Premature birth
- Illness in infancy (e.g. Jaundice)
- Low birth weight
- Anoxia and Hypoxia
- Family history of ANSD
- Head Trauma

Some indicators of ANSD include:

- fluctuating hearing from day to day
- difficulty understanding speech, especially when there is a lot of background noise
- may not show up on traditional hearing tests



There is no cure for ANSD, but a combination of assistive listening devices and speech-language pathology services is commonly used to support children.

Additional Information on Causes of Hearing Loss

- The causes of hearing loss vary to include illness, injury, or genetics.
- Hearing loss can also be caused when a child uses an ototoxic medication.
- Centers for Disease Control (CDC) statistics: genetic causes account for approximately 50% of babies identified with a hearing loss.
 - Approximately one out of three babies whose hearing loss is due to genetic causes have a syndrome including other conditions (e.g., Down Syndrome, Usher's Syndrome).
- 25% of the cases of hearing loss in children are due to maternal infections during pregnancy (e.g. cytomegalovirus), complications after birth, and head trauma.
- The cause of hearing loss is unknown for another 25% of babies born with hearing loss (CDC, 2019).

Understanding the cause of your child's hearing loss, such as a genetic cause, may help predict if your child's hearing loss will remain stable or will change in the future.

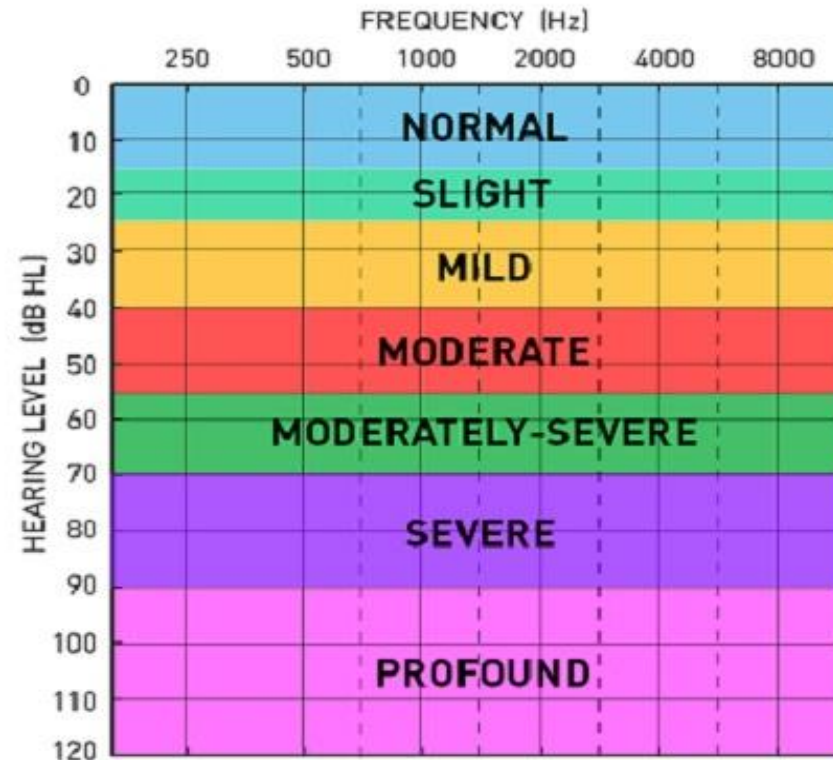
If you or your child's health care provider has questions about the cause of your child's hearing loss and whether it could be inherited, you should talk with a genetic specialist. A genetics counselor can help identify whether your child's hearing loss has a genetic cause. The genetics counselor will use data from physical exams, medical history, family history, and genetic testing to identify the cause of your child's hearing loss. If the cause is genetic, the specialist will be able to explain the genetic cause and the possibility of hearing loss existing in other family members and future children.

Other Descriptors of Hearing Loss

Unilateral and Bilateral Hearing Loss	<p>Hearing loss can occur in one ear or in both ears.</p> <ul style="list-style-type: none">• <u>Unilateral</u> hearing loss: a hearing loss in one ear• <u>Bilateral</u> hearing loss: a hearing loss in both ears<ul style="list-style-type: none">→ <i>Symmetrical</i>: same in both ears→ <i>Asymmetrical</i>: different in each ear
Progressive Hearing Loss	<p>A hearing loss that increases (worsens) over time.</p> <p>The length of the progression varies from person to person so regular monitoring by an audiologist is important.</p>
Fluctuating Hearing Loss	<p>A hearing loss that changes over time, getting better or worse.</p>

Degree of Hearing Loss

An audiologist can test your child's hearing to determine the degree of hearing loss. The degree of loss can vary across the range of frequencies (pitches) of sounds.



For all categories, the specific impact of the hearing loss will vary depending upon the frequency(ies) in which the loss occurs.

Category	Decibel Level	Impact without amplification
Slight/Minimal	16dB-25dB	May have difficulty hearing quiet or distant conversations, especially in noisy environments
Mild	26dB-40dB	Difficulty hearing quiet conversations in noisy places; will miss some speech sounds
Moderate	41dB-70dB	Difficulty hearing speech sounds even when in quiet places
Severe	71dB-90dB	Will hear loud sounds but will not be able to understand spoken language
Profound	91dB+	Will not hear speech or other sounds

Hearing Tests

Audiologists are the health care professionals who diagnose, treat, and manage the care of people with hearing loss.

- Some audiologists specialize in working with children.
- Audiologists may recommend hearing assistive technology based on the results of the hearing test(s) conducted and provide hearing aids or other amplification devices to try to improve individuals' access to sound and to spoken language.

The age of the child will determine the type of hearing test conducted.

The following section is a description of different tests that may be done during the process of learning about your child's hearing levels and the purpose of each test. This section will also explore what your child's audiogram, a graph used to document hearing levels based on pitch and frequency, will look like.

Hearing Tests

Auditory Brainstem Response (ABR): This test is often used to evaluate infants and young children. The infant must be sleeping during the test since movement interferes with test results. In this procedure, sensors are placed on the infant's head to measure responses to sound delivered to the ear from an earphone. The results will specify whether or not the child has a hearing loss.



neuroscimag.com/auditory-brainstem-response-abr-testing-in-baby/

Conditioned Play Audiometry: In this test, the audiologist teaches the child to respond with an action whenever a sound is heard. The child may show that he/she has heard a sound by actions such as placing a block in a bucket, a ring on a peg, or a piece in a puzzle every time a sound is heard. This test is conducted in a soundproof room (similar to a very small room).



lcd-lebanon.org/News/1020/Preparation-for-Audiometry

Otoscopic Exam: An exam in which an otoscope (a lighted device used frequently by medical staff) is placed in the child's ear to assess the condition of the outer ear. The health care professional can assess whether something is blocking the ear canal and whether there may be fluid in the middle ear.



<https://www.hearingdynamicsaz.com/services/otoscopic-examinations/>

Hearing Tests

Subjective or Behavioral Hearing Tests: These tests require a response from the child. The child is presented with a range of tones of different intensities (soft to loud volume) and frequencies (low to high pitch). The audiologist works to obtain a response from the child to the softest sound he/she can hear.



indiamart.com/proddetail/tympanometry-impedance-audiometry-service-19684344448.html

Visual Reinforcement Audiometry: This test is often used with children between six months and two years of age. The test examines the child's responses to sound by providing a visual reinforcer with the sound. The child is in a soundproof booth with an audiologist or a caregiver. The child is shown a preferred toy, doll, or other reinforcing item when he/she looks toward the area from which the sound is heard.

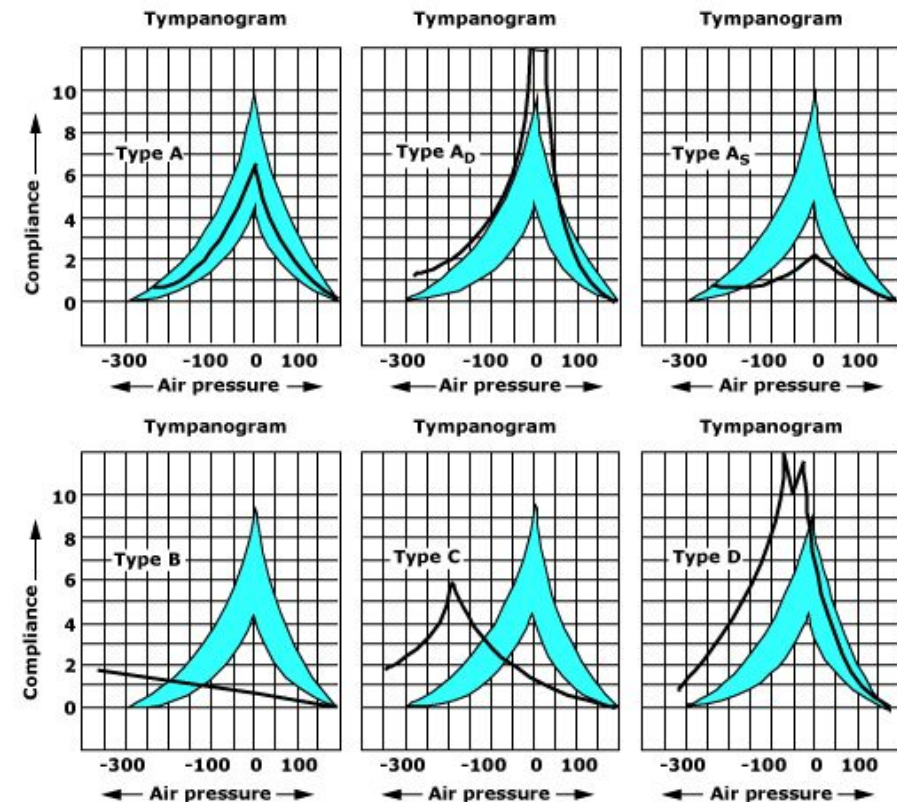


cluasahearing.ie/childrens-hearing/

Hearing Tests

Tympanometry (Impedance Audiometry): The tympanic membrane (the eardrum) separates the outer ear and the middle ear. ***Tympanometry measures middle ear functioning and helps to determine the cause of a child's hearing loss.***

- In this procedure, which measures air pressure, a tiny probe is placed into the ear canal. A puff of air is sent in to assess the response, mobility, of the eardrum.
 - This response indicates whether the middle ear is healthy or if a middle ear problem exists, such as fluid in the ear.
 - A flat response is a sign of a problem.
 - *Type A indicates a healthy eardrum response.*
 - Your child's audiologist will explain the results and what they mean for your child.

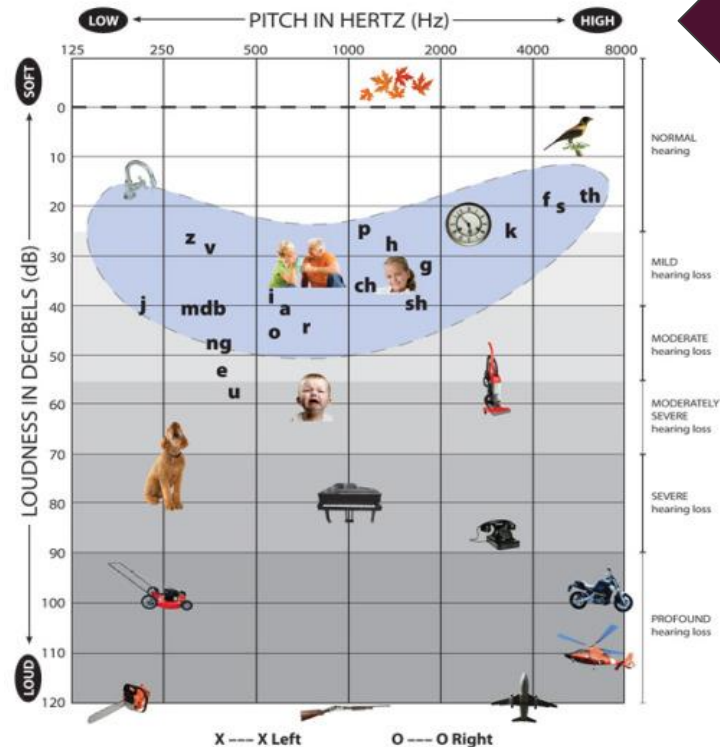


Audiogram

The audiologist records the results of the hearing test(s) on an audiogram, which is a visual representation of your child's hearing loss.

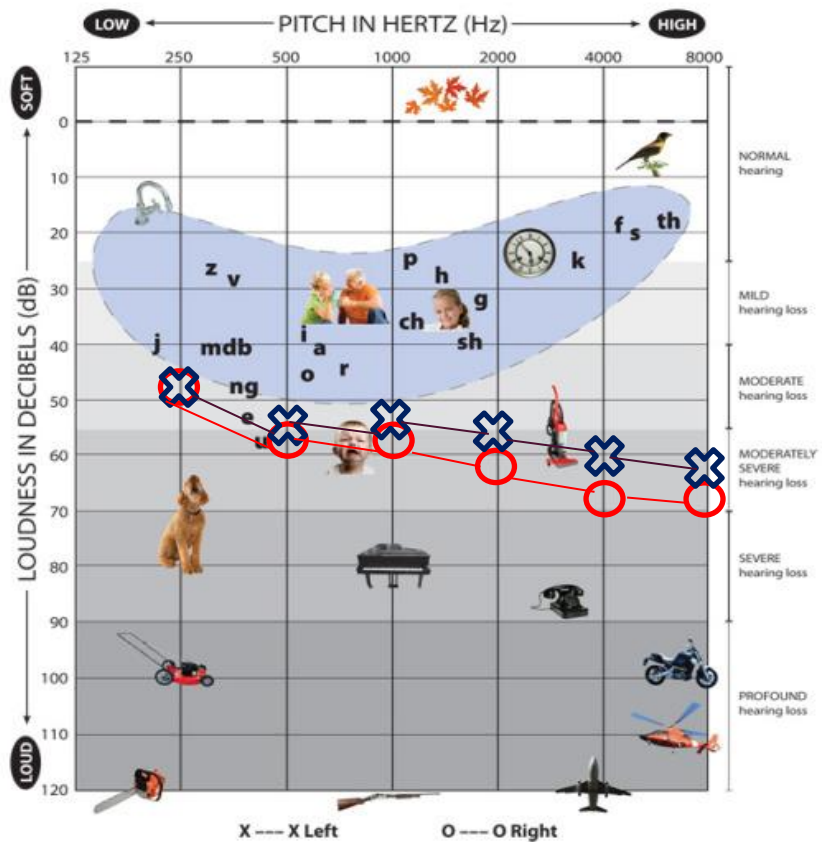
The loudness of sounds the individual can hear is measured in decibels (dB). Sounds are listed from top to bottom with the softest sounds on the top and the loudest sounds at the bottom of the audiogram.

**Think of decibels as the volume on a radio, moving from soft to loud.*



The frequency of sounds (pitch) is measured in hertz (hz). This measurement is printed across the top of the audiogram and moves from low to high (from left to right) across the chart horizontally.

**Think of pitch as the keys on a keyboard or piano, moving from low to high pitch.*



Symbols you may see on an audiogram:

○=Right ear

×=Left ear

S=Soundfield (both ears)

An audiogram includes information about the degree of hearing loss across the range of frequencies, or pitches. Some audiograms include the outline of a shape referred to as the speech banana on them (shown in blue in the diagram).

*Be sure to discuss all findings with your child's audiologist and/or teacher of the deaf so you fully understand how your child's hearing levels will impact their development. It is important to work with an audiologist who has experience with infants and young children.

<https://simpleear.com/blogs/news/8945299-where-do-you-fall-in-the-speech-banana>

Amplification

This section will provide you with information regarding the different types of amplification available to support children's access to spoken language. There are three main types of amplification:

Hearing aids

**Bone-anchored hearing
aids**

Cochlear implants

Important Points to Remember:

- ★ The use of amplification can be beneficial for some children, but it does not restore the loss of hearing completely.

This section will also include information about different types of assistive listening technology available to further support your child.

Hearing Aids

Your child's audiologist will recommend a hearing aid for your child that will best address his/her hearing loss. Most audiologists are also licensed to dispense (or sell) hearing aids. Do not bring your child to a "hearing aid dealer" since most do not employ audiologists and sell hearing aids without having the extensive training and qualifications an audiologist has.

What should hearing aids do?	<ul style="list-style-type: none">• Amplify sounds loud enough for the child to hear but not make sound so loud that further damage to the child's hearing would be caused.• Be appropriate for the child's hearing loss so frequencies at which the child has a hearing loss sound louder and more clear• Be comfortable for the child and also protect from damage while worn
What can a hearing aid do for my child?	<p>There are several types of hearing aids that all serve to amplify sound, making sounds louder and clearer.</p> <p>The extent to which they make the sounds louder and clearer will vary according to the degree and type of your child's hearing loss and the type of hearing aid technology.</p> <p>Hearing aids that are fit correctly can allow your child to access spoken language, which is important for the development of speech and spoken language.</p>

What Will My Child's Hearing Aids Look Like?

The audiologist will most likely fit your child with a *behind the ear* (BTE) style hearing aid as seen in the picture below. The BTE is connected by a very small tube (ear hook) to an ear mold that will be placed in your child's ear canal. The audiologist will have the ear mold made to fit your child's ear and they can be remade and easily replaced in the future as your child grows.



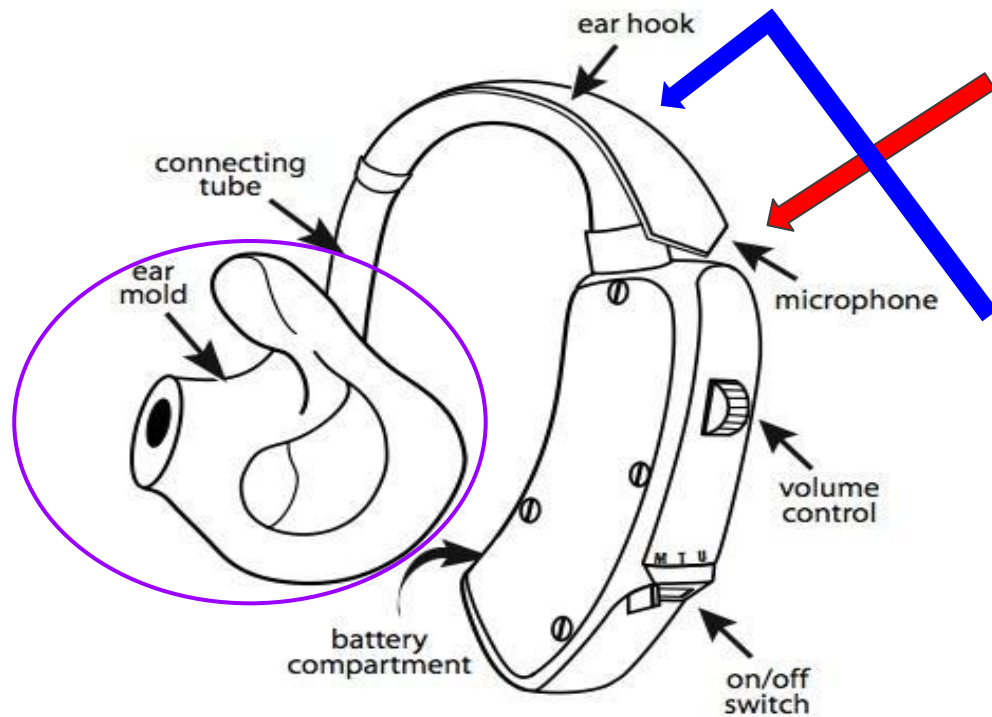
parents.com

Digital Hearing Aids

Digital hearing aids convert sound into numbers, similar to any digital technology (e.g., music on CDs).

- The hearing aid is programmed by the audiologist using computer software to amplify sounds within specific frequencies.
 - This allows speech to be separated from background noise
- This allows spoken language to be amplified a greater amount than the noise is amplified. This helps the hearing aid user hear better in noise.

How Do Hearing Aids Work?



1. The microphone picks up sounds around your child and sends them to a processor in the aid that amplifies the sounds.
 - The audiologist will adjust the hearing aids to fine tune the amplification to the greatest extent possible as indicated by your child's hearing loss.
2. The amplified sound goes through the ear hook to the ear mold.
 - The ear hook is a small plastic tube that fits over and behind the child's outer ear.
3. The ear hook then connects to the ear mold, which holds the hearing aid in the child's ear and directs the sound waves into the ear canal.
 - The amplified sound waves follow the same path through the ear as discussed in the "How We Hear" section.

How Are Hearing Aids Fit?

Hearing aids are typically fitted for both ears unless there is a medical reason to have a hearing aid only on one ear. Providing sound to both ears helps your child hear better in more listening environments, and will help your child to more easily localize sound.

Your audiologist will be able to recommend a hearing aid that provides the proper physical fit and safe usage for your child. This will include child-size tone hooks, childproof battery compartments, and volume control covers.

Initial appointment: ear impressions will be made for the ear mold.

- Soft, putty-like material will be placed in the child's ear. This will not hurt your child, but they will need to be still while the impression dries.
- It will take one to two weeks for the ear molds to be made and the hearing aids will be ordered at the same time.
- The type of hearing aid recommended by the audiologist will be based on your child's hearing levels and needs. Both hearing aids and ear molds are available in a variety of colors.

Once your child has hearing aids, their adjustment to them needs to be checked regularly. You should plan regular visits for your infant or young child to the audiologist to ensure that the aid meets his/her needs properly.



Cochlear Implants



<https://therapyandwellnessconnection.com/insights/deaf-children-still-need-speech-therapy-even-with-cochlear-implants/>



<https://www.magrabi.com.sa/2015/145/cochlear-implants/>

A cochlear implant is a device designed to provide access to sound for a person who receives little to no benefit from other hearing assistive technology, such as a hearing aid.

The device is implanted into the mastoid bone and sends electronic signals into the cochlea to stimulate the auditory nerve. The information is then sent to the brain and the auditory processing center.

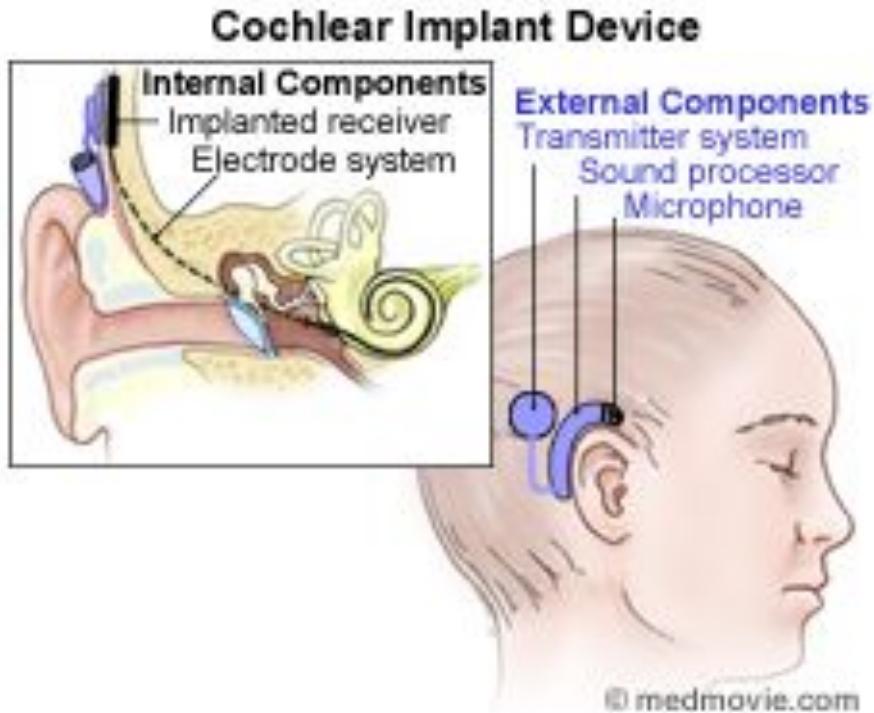
- The three primary companies that manufacture and sell cochlear implants are:
 - Cochlear
 - Med-El
 - Advanced Bionics
- Your audiologist may recommend one to you and you should also talk with other parents to learn about their experiences with their children's implants prior to deciding.

How Does a Cochlear Implant Work?

Cochlear implants have two major components:

1. **External Sound Processor** (includes a microphone and a transmitter system)
 - Sends the electronic signals to the implanted receiver
2. **Implanted Receiver and Electrode System**
 - Receives electronic signals from the transmitter and sends signals to cochlea and auditory nerve.

- The external component connects to the implanted component with a magnet placed on the child's head near the ear.
- Cochlear implants are approved by the Food and Drug Administration (FDA) for children age 12 months and older, though research has been approved by the FDA and conducted to evaluate the impact of earlier implantation, and implants have been done with infants younger than 12 months.
 - Some private insurance companies and Medicaid programs provide partial or full coverage for cochlear implants.

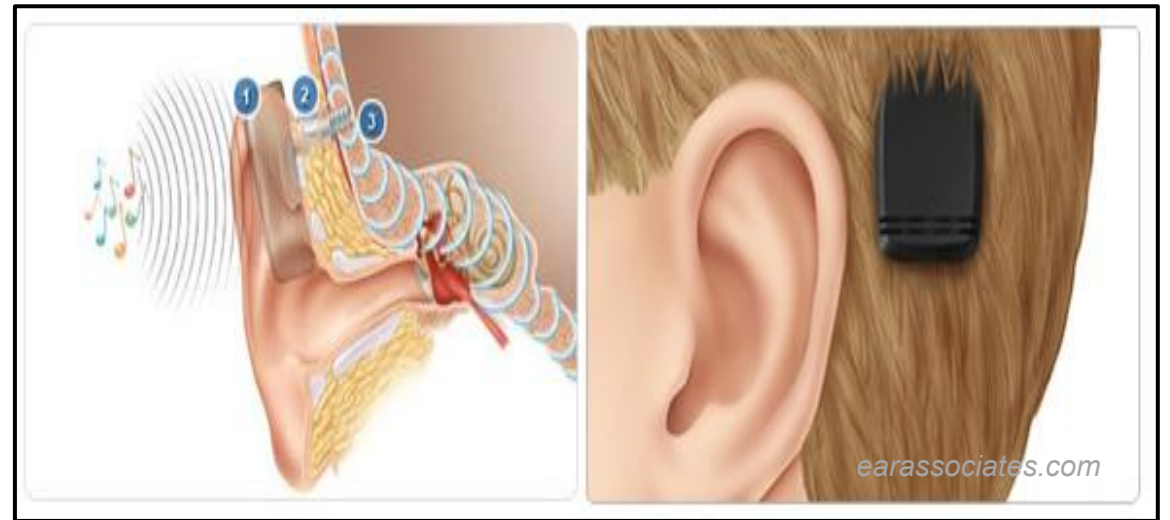


Bone Conduction (Anchored) Hearing Aids

A bone conduction hearing aid is typically used by individuals who have a permanent conductive hearing loss and do not benefit from conventional hearing aids.

- They are beneficial for children who have a narrow ear canal or are missing the pinna (outer ear) making the use of a traditional hearing aid is not possible.
- These hearing aids use vibrations via the mastoid bone to allow sound to get to the cochlea, enabling the child to hear the sounds.

Bone conduction hearing aids are typically attached to a headband for a young child and can be surgically implanted later on.



The most common term used for these devices is BAHA (bone anchored hearing aid) which is also a brand of bone anchored hearing systems.

Using Amplification: What to Expect

Starting to use amplification can be challenging, though some children may have no difficulty.

- A young child may accept hearing aids/cochlear implants/BAHAs at first but then reject them as they become more active.
- Your child may pull the amplification devices out just to explore them.
- As your child becomes a more independent toddler, a power struggle about amplification use could develop.
 - If your toddler pulls out one or both hearing aids, simply put it back on.
 - Ask other parents, your child's teacher of the deaf or audiologist for suggestions about how to increase amplification use.

An infant or young child cannot tell you if the hearing aids are working, so it is important that you are well versed with the basic operation of the hearing aid.

- Your audiologist will train you to care for and maintain the hearing aid and will provide the necessary tools.
- Each morning, before putting the hearing aid on your child, you will need to do a listening check.
- Hearing aids do not generally require much maintenance other than routine battery changes.
- Daily listening checks and visual inspection of the ear molds will ensure your child's hearing aid works.
 - Your audiologist and/or teacher of the deaf will teach you how to do the listening check.
 - A little practice will enable you to do most of the basic troubleshooting that may be needed.

Using Amplification: Tips and Tricks

The goal is for hearing aid use to become part of your child's daily routine.

TIPS

- Put the amplification devices on your child for short periods of time and increase the time incrementally to help your child get used to them.
- If your toddler pulls out one or both hearing aids, simply put it back on.
- Ask other parents, your child's teacher of the deaf or the audiologist for suggestions about how to increase hearing aid use.
- As your child gets older, choosing colors and patterns for ear molds, hearing aids, and hearing aid cases may increase your child's willingness to wear their hearing aids.

You can use a cap or headband to cover the amplification devices in order to prevent your child from removing them. There are also several other types of retaining devices that attach to hearing aids and clip onto an item of your child's clothing. These are designed to prevent loss of the hearing aids. Below are several options:



Cost of Hearing Aids

Hearing aids are expensive, with the cost varying according to the type of hearing aid.

- Some private insurance companies and Medicaid provide partial or full coverage of hearing aids
 - check directly with your insurance company to determine if your plan covers hearing aids
- Some service clubs, such as Lions or Rotary, provide assistance for the purchase of hearing aids.
- Check with your audiologist, they may know of other options!



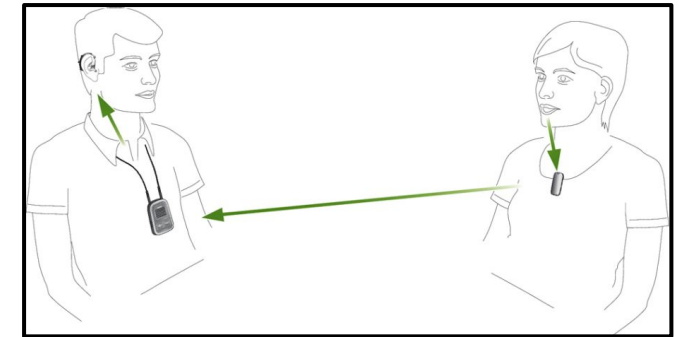
- **Loss or damage of hearing aids is a typical concern, but most manufacturers include a standard one-year warranty covering loss and damage.**
 - **Additional coverage may also be available from the manufacturer or insurance provider.**

FM/DM Systems

FM systems are typically used in school or other places where background noise makes hearing difficult even with amplification from a hearing aid or implant.

The purpose is to perceptually decrease the distance from the speaker to the child's ear, which serves to strengthen the speaker's voice and reduce the background noise. A DM (digital modulation) system is similar to an FM but transmits sound digitally. FM and DM systems are in a category called hearing assistive technology (HAT).

- In a classroom, the teacher wears a small microphone and transmitter, and the child wears a receiver (sometimes referred to as an audio shoe or boot) that is attached to his/her hearing aid or cochlear implant. Models with independent receivers may be used when needed as well.
 - The microphone is worn as close to the teacher's mouth as possible, and the sound is delivered to the receiver and then through the hearing aid or implant to the child's ear.
- FM/DM systems need to be compatible with the child's hearing aid or implant, so an audiologist must choose the appropriate one for your child.
 - When these systems are used in school, the school district makes the purchase.
 - The district then owns the system.
- They can be used in other environments as well when it is advantageous to the listener to have background noise reduced.



<https://columbiamohearingcenter.com/hearing-accessories/>



<https://www.ihear.co.uk/products/phonak-roger-touchscreen-mic>



<https://www.oticon.com/solutions/for-children/amigo-fm>

Soundfield Systems

Soundfield systems are often used in classrooms to improve the listening environment for one or more students.

- While a soundfield system may be used for one student, all students benefit from the improved ability to hear the teacher's voice clearly.
- This classroom system is useful for students with mild or fluctuating hearing loss and can also be helpful for students who have a central auditory processing disorder.
- Like an FM device, a soundfield amplification system serves to reduce background noise and amplify the teacher's voice.
- The components include a microphone/transmitter, an amplifier, and a number of loudspeakers that are strategically placed in locations around the room and ceiling.
 - The teacher wears the microphone/transmitter, which transmits his/her voice to the speakers.
 - **The goal is to provide amplification uniformly throughout the room.**
 - Portable systems that can be placed on a student's desk are also available.



A typical classroom without a Soundfield system



A classroom with a Soundfield system installed

<https://cie-group.com/how-to-av/videos-and-blogs/what-is-a-classroom-soundfield-system>

Visual Technology/Assistive Devices

This section will provide insight on the wide variety of technology that is available and created specifically for deaf, hard of hearing and deaf-blind individuals. Included in this section will be:

- signaling devices
- captioning

Check with your child's audiologist, teacher of the deaf, or early intervention service coordinator for more information on available technologies to best support your child.

Signaling Devices and Captioning

Signaling Devices

Signaling devices use lights or vibrations to get the attention of deaf/hard of hearing individuals. Some devices are item-specific such as telephone signalers, doorbell signalers, and smoke detector strobe lights. Others are generic, can be plugged into wall outlets, and can make a light respond when there is a loud noise nearby. Companies selling signaling devices also typically sell visual alarm clocks and watches, though cell phones often can serve the same function. Cell phone amplifiers and signalers are available as well.



<https://www.affordablevideomagnifiers.com/sonic-alert-sonic-system-ss1200c-signaling-combo-doorbell-clock-phone/>

Captioning

Captioning is available on most videos through the device you use to watch them. Captioning on television and DVDs allows individuals access to information they cannot hear. Captioning can have educational benefits in that the individual reads the captions throughout the shows or movies they watch.



<https://www.tvtechnology.com/news/fcc-debate-s-evolution-of-live-captioning-for-news>

Communication and Language

- Parents of deaf and hard of hearing children have to make decisions regarding the communication mode they want their child to use.
 - Communication: the process of imparting and receiving information.
 - Language: the means we use to communicate
 - Example: spoken English or American Sign Language (ASL)
- The mode of communication for individuals with hearing loss varies according to various factors. Some of these factors include:
 - parent preference
 - individual ability (and preference if old enough to decide for oneself)
 - degree of hearing loss
 - child's ability to access spoken language
 - whether the child is from a Deaf family or a hearing family
- The development of language and communication skills are critical for every infant/young child.

The continuum of communication opportunities ranges from those that are more auditory to those that are more visual. The information on the following pages is an alphabetical list of communication approaches.



American Sign Language

American Sign Language (ASL) is a visual language that has a grammar and syntax of its own.

According to the National Association of the Deaf, *With signing, the brain processes linguistic information through the eyes. The shape, placement, and movement of the hands, as well as facial expressions and body movements, all play important parts in conveying information.*

- A signer's facial expression and sign handshape, placement, movement, and palm orientation are part of the language.
- ASL is three-dimensional with the hands and movement conveying linguistic information.
- ASL can be quickly understood and used by children who are deaf or hard of hearing and allows their language and cognitive skills to develop at an age appropriate rate.

For more information, here is a link to a video from ASL THAT which describes American Sign Language: <https://www.youtube.com/watch?v=lyUXSfgvc48>

In NH, we have the Family Sign Language Program, which offers in-home sign language instruction for families of children who are deaf or hard of hearing. For more information, visit: <https://www.ndhhs.org/family-sign-language-program>



<https://www.iwillteachyoualanguage.com/blog/american-sign-language>



<https://www.newsweek.com/asl-day-2019-american-sign-language-1394695>

Bilingual Bimodal Approach

A bilingual bimodal approach supports the acquisition of both a spoken language and a signed language.

- Bilingual refers to two different languages, such as American Sign Language and spoken English.
- Bimodal refers to two different modes, one signed and one spoken.

The languages are kept separate and whole, therefore speaking and signing are not used at the same time.



Cued Speech

According to the National Cued Speech Association,

Cued Speech is a visual mode of communication in which mouth movements of speech combine with “cues” to make the sounds (phonemes) of traditional spoken languages look different. Cueing allows users who are deaf, hard of hearing or who have language/communication disorders to access the basic, fundamental properties of spoken languages through the use of vision.

How does it work?

- Cued speech consists of **eight handshapes** that represent consonants and **four locations around the face** that represent vowels.
- Cues are combined with natural mouth movements of the spoken language to show the sounds of speech, with or without voice.



<https://nvrc.org/tag/cued-speech/>

Cued speech is a finite system that can be learned in about 15 hours.

For more information, visit the National Cued Speech Association's website: www.cuedspeech.org

Listening and Spoken Language (LSL)

First, it is important to know that speech and language are not the same.

- Speech is the ability to use the tongue, lips, jaw and vocal tract in a precise and coordinated way to produce recognizable sounds that make up a language
- Language refers to a system of words and symbols used to convey meaning
- Terms that are sometimes used for this communication approach include:
 - listening and spoken language (LSL)
 - auditory-oral
 - auditory-verbal
 - speaking and listening
- The focus is on helping the child to learn to attend to sound, understand the meaning of spoken utterances, and to use spoken language.
- The use of hearing aids or cochlear implants assists the child in being able to access spoken language and then learn to use it.



<https://oberkottorfoundation.org/grants-2/>

For more information, visit the Alexander Graham Bell Association for the Deaf and Hard of Hearing: <https://www.agbell.org/Families/Listening-and-Spoken-Language>

Manually Coded English (MCE)

Manually Coded English (MCE) is used to encompass a variety of visual communication methods expressed through the hands, which attempt to show the English language visually.

- Many signs that are used in MCE are borrowed from American Sign Language **BUT** they are used based on English word order, sentence structure and grammar.
- The sign systems that fall under this approach are:
 - sign supported speech
 - conceptually accurate signed English (CASE)
 - signed English
 - Signing Exact English (SEE)



<https://www.cookchildrens.org/SiteCollectionDocuments/specialties/rehabilitation/CookChildrens-JumpStartChart.pdf>

The associated educational philosophy, *Total Communication*, is not a communication method. It is an educational philosophy with the belief in using any means to communicate such as through signs, gestures, listening, speech, speechreading, ASL, mime, pictures, reading, and/or writing.

Choosing a Communication Approach

There is no one correct answer to the question of how best to communicate with your child.

- All of the approaches described have worked very well for some children and their families.
- You can try one method and decide to change to another at a later time.
- The majority of families use more than one communication method, so do not feel locked into only one.
- As your child grows, you will observe what method facilitates the greatest language development and communication and also when they are most frustrated.
 - This will help you to judge the effectiveness of your choices.
- As you see improvement in your child's ability to understand and use language, you will know you are using methods that provide the greatest access to language and communication.
- **It is critical that you communicate with your child and that they develop language.**



Family involvement with their child is the single most important factor in their communication and language growth.



Choosing a Communication Approach: How Do We Decide?

- Look at the resources listed in this book.
- Talk with other parents who have deaf or hard of hearing children to discuss their choices and how they made them.
- Talk with deaf and hard of hearing adults directly to learn about their experiences with communication and to hear their opinions about communication choices.
- Ask to visit programs/schools in your area that serve deaf children so you can observe children using different communication methods.
- Listen to others' opinions (e.g., your child's audiologist, speech/language pathologist, pediatrician, etc.), but make the decision that works best for your child, you, and your family.
- Understand your child's hearing tests and how his/her hearing level is likely to affect his/her ability to develop age-appropriate language and communication skills.
- Think about how much time you can commit to learning and using the communication mode you choose.
- Consider whether the rest of the family will also be able to learn and use the method chosen.
- Obtain information about the supports and services in your area available for this communication method.

It is important that you begin communicating with your child immediately, the earlier the better! All communication methods require a strong commitment on the part of the parents/caregivers in order to work well. Your commitment to *accessible* communication is the key to your child's language development. For a child who is deaf or hard of hearing, every waking moment is a language learning opportunity and you need to be able to communicate with them.

Resources on Communication

- AG Bell Association
<https://www.agbell.org/Families>



- Boys Town National Research Hospital
<https://www.boystownhospital.org/hearingservices/childhoodDeafness/Pages/default.aspx>



- Centers for Disease Control Parent's Guide to Hearing Loss
<https://www.cdc.gov/ncbddd/hearingloss/parentsguide/>



- Laurent Clerc National Deaf Education Center
<https://www3.gallaudet.edu/clerc-center/learning-opportunities/webcasts/maximizing-language-acquisition-webcast.html>

- National Association of the Deaf
<https://www.nad.org/resources/american-sign-language/learning-american-sign-language/>

- National Cued Speech Association
<http://www.cuedspeech.org>



Tips for Early Communication with Your Child

Early Language Learning

Your child's ability to communicate will depend upon how well he/she learns language. Each child is unique, and all parents need to further the development of their child's early language. This is fostered by the following.

- Early communication with you: You should communicate with spoken and/or signed language, and your face and eyes as you would with any young child.
- Using language, which helps your child to learn to think and to communicate.
- Communicating at a rate that is comfortable for you and your child.
- Playing with your child and offering a variety of experiences to help your child learn about his/her world and develop a fund of world knowledge.

Communicating with Your Child

Try the following with your child.

- Get your child's attention by saying his/her name, waiting until he/she looks at you or by gently waving to or touching him/her.
- Smile and laugh with your child. Try making the same facial expression that you see your child making. Wait for a response and then do it again.
- Place your face at your child's eye level when you are playing.
- Play with toys that your child can see and hear, for example, one with flashing lights and music.
- Use a stroller that allows your child to face you so he/she can see and connect with you.

Lastly, take time to get to know your child well before you make a decision about the communication choice you will use. Play together. Enjoy all the gifts that your child brings to you and your family. You may get a lot of advice from others, but it is important to take your time and decide what is best for your child and your family. It may seem overwhelming, but you will learn about your child's hearing and his/her unique strengths. You will be able to meet parents of other children who are deaf and hard of hearing, and you will work with professionals who can help you and your child.

Family Support

Finding out that your child is deaf or hard of hearing can be difficult. You will have questions and concerns and need to have sources of support. This may come from your friends, family members, other parents, deaf adults, professionals, etc. There are lots of things to consider such as communication approaches, educational programming and hearing/visual technology. Below are some resources that you may find helpful.

New Hampshire Hands & Voices

Meeting other parents of children who are deaf or hard of hearing can be crucial. Hands and Voices is a national organization for parents of children who are deaf or hard of hearing whose motto is “what works for your child is what makes the choice right.” A group of parents with deaf and hard of hearing children in New Hampshire established a chapter of Hands & Voices in 2019. Through New Hampshire Hands & Voices, there are opportunities to meet children who are deaf or hard of hearing and talk with other families about their choices for a particular communication approach.

Website: <https://nhhandsandvoices.com/>

Email: HandVNH@gmail.com



Deaf and Hard of Hearing Role Model Program

New Hampshire's Deaf and Hard of Hearing Role Model Program provides families with the opportunity to meet adults who are deaf or hard of hearing. The role models represent a diverse group of individuals with a range of hearing levels, communication modes, technology use and educational backgrounds. They are available to answer questions and share first hand experiences of what it is like to be deaf or hard of hearing.

Website: <https://ndhhs.org/infants-toddlers/>

Email: info@ndhhs.org



Professionals Who Can Offer Support

Audiologist

The professional who evaluates and identifies your child's hearing loss can share information about amplification devices, communication impact, and community resources.

Teacher of the Deaf

This is a teacher specifically trained to work with children who are deaf or hard of hearing. It is important that every child has access to a teacher of the deaf through their services.

Physicians

In addition to your pediatrician, an ear, nose, and throat specialist (otolaryngologist) can diagnose medical problems with your child's ears, recommend treatment, provide medical clearance for hearing aids, and provide information about other supports for your child.

Speech/Language Pathologist

This is a licensed health care professional who works with children who have language or speech needs. This may include children whose language and speech concerns are a result of their hearing loss. Some have specific training to work with children who are deaf or hard of hearing.

Early Intervention Service Coordinator

Professionals from New Hampshire's Family-Centered Early Supports and Services (FCESS) can connect you and your child with services to foster the development of communication and language and will be familiar with support services in your area.

Early Hearing Detection and Intervention Program

The first years of life are a critical time to learn language. Language is needed for the development of thinking skills and social skills. If a hearing loss is found and intervention services begin early, your child is more likely to have communication and cognitive skills that are appropriate for his/her age.

Newborn hearing screening is done at every hospital in New Hampshire. Newborns who do not “pass” the hearing screening are referred for diagnostic testing at a pediatric audiology diagnostic center. The hospital staff notifies the child’s health care provider and you about the results of the hearing screening. They also enter the information into the state tracking system. After the diagnostic tests are completed, the results are usually sent to the parents, the primary care provider, and the state tracking system, the Early Hearing Detection and Intervention Program (EHDI). Since the year 2003, the New Hampshire EHDI Program has utilized a secure online system to document hearing screening results, diagnostic testing results, and entry into early intervention services. Children with confirmed hearing loss should also be referred for otolaryngology, genetics, and ophthalmology evaluations. For more information visit: <https://www.dhhs.nh.gov/dphs/bchs/mch/hearing.htm>



https://www.infanthearing.org/states/state_profile.php?state=newhampshire



<https://hearinghealthfoundation.org/newborn-hearing-screening>

Educational Services



<https://www.dhhs.nh.gov/dcbcs/bds/earlysupport/documents/directory.pdf>

Early Intervention (Ages 0-3)

*Services are provided through Family-Centered Early Supports and Services (FCESS) in New Hampshire.

*Anyone can make a referral, including a family member!

*An evaluation is completed and eligibility for services is based on one of the following categories:

- 1) Established condition, such as hearing loss
- 2) Atypical development
- 3) Developmental delay 33% of their age in one or more of the domains of development
- 4) Meeting the at-risk definition in He-M 510 state rule

Any child with an identified hearing loss is eligible for services and services should begin as soon after the hearing loss is confirmed as possible.

Early intervention services in NH

*Provided through 10 regional Area Agencies. Their program directory can be found here: [Family-Centered Early Supports and Services | Bureau of Developmental Services | NH Department of Health and Human Services](#)

*Services include the child and the family. The following is some information about Family-Centered Early Supports and Services (FCESS):

- FCESS staff members will give you details about the program. They will collect information about your child to help develop a plan for services.
- FCESS staff members will use toys and activities with your child to help learn about him/her and his/her needs.
- You will work with the FCESS staff members to decide how to help your child learn new skills. You will work with the team to develop an Individual Family Support Plan (IFSP) that will identify goals for your child and services to be provided to your child and family.
- You will work with a service coordinator who is the person who will ensure that you are connected with providers who will work with you and your child.
- Services are provided in the most convenient and natural location for you and your child, often in your home.
- Services that may be offered to families according to the needs of your child include family support, occupational therapy, physical therapy, speech and language therapy, service coordination, etc.

****It is important to have a teacher of the deaf or a professional trained to work with children who are deaf or hard of hearing as part of this team.**

They can help you:

- *understand your child's hearing levels
- *support your child's communication and language skills
- *explore communication approaches
- *teach you how to use/care for your child's hearing assistive technology (such as a hearing aid or cochlear implant)



8 Reasons to say YES to Early Intervention for your child who is Deaf/Hard of Hearing(D/HH) ...What are you waiting for?



1. *Early Intervention is worth the time

Early Intervention (EI) will help you incorporate language development and needed supports for your child into your daily routines. Research shows early involvement can help your child avoid language delays. Starting EI now will help you and your child on the path to future success.

2. We are in this together

Feeling overwhelmed or isolated? Professionals and other parents of D/HH kids can share this journey with you and support you. A whole community is ready to embrace you. Hearing other families' experiences can help you think ahead through your own journey.

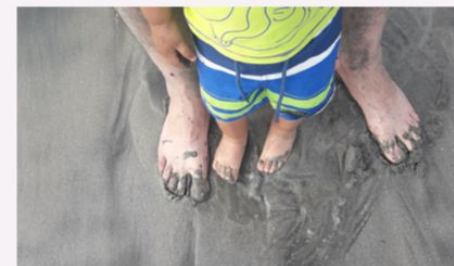


3. Early Involvement will help your other family members

As you understand your own child's needs through EI, your child's siblings, extended family, friends and neighbors can learn to better communicate with and include your child. If your circle of support is small, EI helps build a larger circle to surround your family.

4. There is more to this than just 'google it'

With a seemingly endless world of resources, articles, videos, online support, podcasts, and more, where is the *wisdom*? A personal connection to EI providers can help you process the information available at your fingertips with what you know and can try with your own child.





5. Facing your fears will bring freedom

You may feel like you don't know anything about what being D/HH might mean for your child. You may not see your family as part of this world. A "new normal" can be a life of joy, and better than imagined.

6. You will ask better questions

You don't know what you don't know. Having support through EI helps you learn important questions to ask and how to find answers in what works for your child. You will be able to answer the questions most pressing to your child's needs.



7. You can do this in the context of your own family's values

You can adapt services to be in line with your family's values and goals for your child's future, provided in your language and cultural context. A system is in place to ensure that EI providers and programs are a match to your family and child's needs.

8. You will gain confidence that you are your child's best advocate

You will become your child's best advocate in the school years by learning about deafness, language and development through EI. Your advocacy will light the path for your child's success.

**Early Intervention is the term used to describe the services and supports that are available to babies and young children with developmental delays and disabilities and their families.*



For more information and to get connected to Early Intervention, contact fl3@handsandvoices.org, your state EHDI program, your state or territory's Part C Coordinator or a local Early Intervention provider.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UJ1MC30748-01-00 for Family Leadership in Language And Learning for \$1,500,00.00 This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Referral Process for Early Intervention

Anyone can make a referral to FCESS! A parent or other person who is concerned about an infant or toddler's development may make a referral to FCESS. When someone other than the parents initiates the referral, the parents are notified and must provide consent. Participation in FCESS services is voluntary.

Intake	The first person you will meet is the intake coordinator who receives the referral. He/she will call you to schedule an intake visit that typically is held in your home. During the visit, the intake coordinator will give you information about the FCESS program and will answer any questions you have. He/she will ask you about your child's development and health and for you to sign a request/release form for your child's physicians in order to allow him/her to send copies of medical reports to FCESS. If you have copies of any medical reports, please share them with the intake coordinator. You can call the intake coordinator with questions at any time.
Developmental Evaluation and Assessment	Upon entering the FCESS program and annually thereafter, your child will have a full developmental evaluation and assessment. The evaluation team includes the parents and two qualified evaluators from different disciplines (e.g., an educator and a physical therapist, an educator and a speech/language pathologist). Team members assess the five areas of development: communication, movement, adaptive (self-help), social/emotional, and cognitive.
Individual Family Support Plan (IFSP)	You and other members of the evaluation team will identify goals for your child that will be documented on the IFSP. The team will decide on the services your child needs in order to reach the IFSP goals. Your family and your interactions with the child are key to his/her development, so you can also receive services. The IFSP should be updated as your child grows and learns new skills. All services received by your child are included on the IFSP regardless of who provides or pays for the services. You may find it helpful to keep a list of team members and contact information for them, so you can reach them when you need to.
IFSP Team	Team members include your child's service coordinator and individuals from different disciplines (e.g., speech and language, deaf education, etc.). You, the parent, are the most important member of the team. You see your child's development better than any other team member. You are the person who puts on your child's hearing aids, interacts with him/her each day, so it is very important for you to share what you see and know about your child and to advocate for your child. The providers on the team will help you learn more ways to foster your child's growth and communication. The other members of the team can also share information with you to help with your decision making on issues such as communication and education.

Educational Programs and Decision Making

What happens when your child is near or turning age three?

When your child turns three years of age, pursuant to the Individuals with Disabilities Education Act (IDEA), the local public school district is responsible for evaluating children. If your child qualifies for special education, the local school district is responsible for providing a free and appropriate public education (FAPE) for children with disabilities from ages 3 to 21. This is also in the state regulations promulgated in New Hampshire *Chapter Ed 1100 Standards for the Education of Children with Disabilities*.

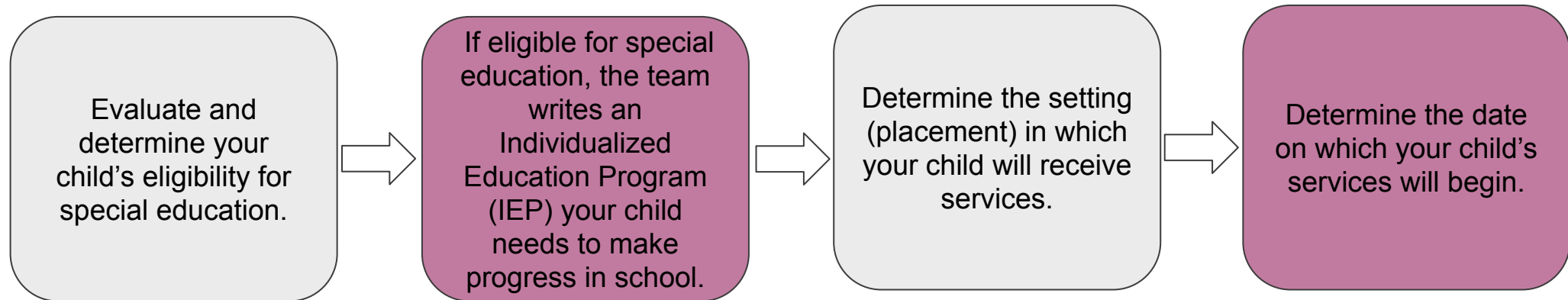
How do I find out if my child qualifies for special education services at age 3?

- 1) If your child is enrolled in early intervention (FCESS), your service coordinator will ask for your permission (and signature on a release form) to refer your child to your local school district for an evaluation for special education. Ninety days or more before your child's third birthday, your service coordinator will arrange a meeting with you, the IFSP team, and the school district preschool coordinator to develop a transition plan for your child.
- 2) If you are not enrolled in a FCESS program, you will need to notify the school district yourself. Contact either your district's Director of Special Education or the Preschool Special Education Coordinator.



What happens when your child is near or turning age three?

After a referral has been made, here is what the process looks like:



Following the meeting, the school district will send you the IEP. You need to review it, ask any questions you have or request any needed changes, sign the IEP and return it to the school district. Services will begin at age three at the date and location you agreed to.

Starting Preschool Services

There are three parts to starting preschool services: identification (and evaluation), the IEP, and placement.

Identification:

As described in the previous section, you will be invited to participate in a meeting to review evaluation results and determine if your child is eligible for special education. The evaluation team may include a preschool coordinator, a special educator teacher, an audiologist, a speech and language pathologist, a teacher of the deaf, and a school psychologist. You may invite anyone you want to attend the team meeting with you.

IEP:

If your child is determined to be eligible for special education, the team will write an Individualized Education Program, IEP. IEPs are similar to IFSPs but are for children between the ages of 3 and 21 and focus on the child's educational needs. As with the IFSP, the team will write goals and determine the accommodations and services your child needs. The team will also determine your child's placement. Placement may be in a preschool class with peers who do not have disabilities, in a special education class, in a community-based preschool, in the home, or in another setting. The aim is to place the child in the least restrictive environment (LRE). The LRE requirement is to educate children with disabilities alongside their peers who do not have disabilities unless the child's disability is such that the intensity of services that the child needs cannot be provided in the regular education setting. The LRE for a child who is deaf or hard of hearing *may not* always be their home district. Be sure to the IEP team considers the language and communication special factors. One great resource around this is:

<https://successforkidswithhearingloss.com/wp-content/uploads/2019/01/Special-Considerations-and-LRE-for-Students-with-Hearing-Loss.pdf>

The IEP team will review the child's progress annually and write a new IEP before the active IEP year ends. In addition, you can request that an IEP team meeting be held at any other time during the year. As the parent of a child with a disability, you have rights that are specified in the IDEA and the New Hampshire Standards.

Placement:

Most children who are deaf or hard of hearing living in New Hampshire are educated at their local public schools. However, some districts operate programs with one or more teachers of the deaf and other service providers, such as speech and language pathologists, who are experienced in working with deaf and hard of hearing students. New Hampshire does not have a residential school for the deaf. If your child would benefit from that type of program, the IEP team would have to determine that your child's needs cannot be met in district and therefore would explore other options including ones out of state, such as Massachusetts, Maine or Connecticut.

Educational Programs

As previously mentioned, many children are educated at their local public school in New Hampshire. However, if your child's needs cannot be met in district, out of district and out of state options include:

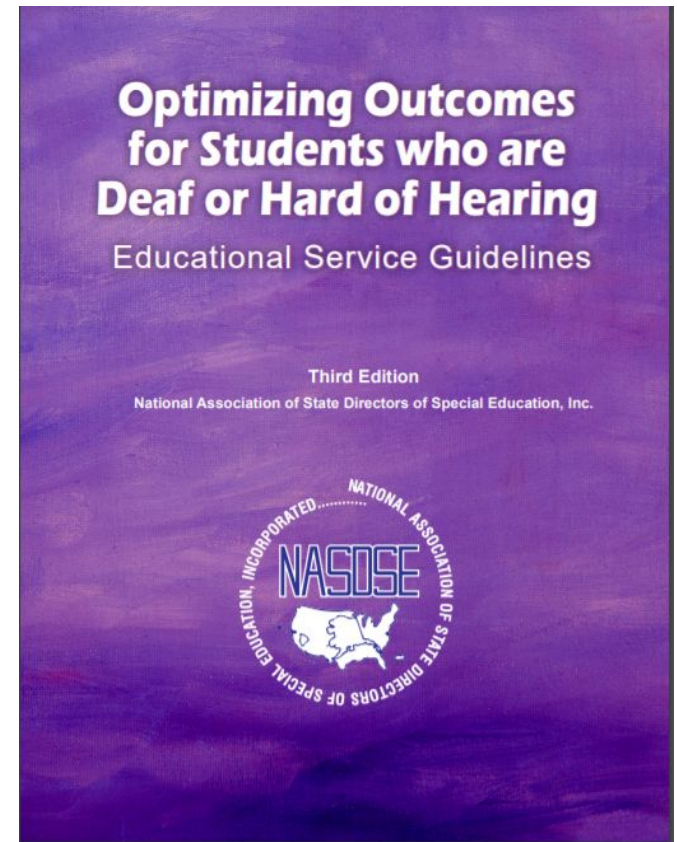
- **American School for the Deaf (ASD)**
<https://www.asd-1817.org/>
The oldest and first school for the deaf in the United States. ASD is located in West Hartford, Connecticut and also operates a residential summer camp program called Camp Isola Bella located in Salisbury, Connecticut.
- **Clarke Schools for Hearing and Speech**
<http://www.clarkeschools.org/>
Provides children who are deaf or hard of hearing with the listening, learning, and spoken language skills they need to succeed. Clarke offers educational programs and services at five locations: Boston, Jacksonville, New York City, Northampton and Philadelphia. Services include early intervention education at most locations and a kindergarten through eighth grade program at the Northampton, Massachusetts location.
- **Maine Educational Center for the Deaf and Hard of Hearing**
<https://www.mecdhh.org/>
Provides educational services to deaf and hard of hearing children across the state of Maine including direct instruction, support services, and consultation services.
- **The Children's Center for Communication (CCC): Beverly School for the Deaf (BSD)** <https://cccbsd.org/>
Provides services and supports to students with Autism Spectrum Disorder, Cerebral Palsy, and/or development or physical challenges. The BSD provides an academic and language rich program for students from preschool to high school with any degree of hearing loss. Students have varying communication styles and needs and may use ASL, oral language, and/or have cochlear implants, hearing aids, FM systems.
- **The Learning Center for Deaf Children (TLC)**
<https://www.tlcdeaf.org/>
TLC is a multi-service agency serving deaf and hard of hearing individuals throughout Massachusetts. TLC operates a preschool through 12th grade school program on its main campus in Framingham. Other services are offered in Framingham, at public schools, and in a satellite office in Springfield
- **The Signs of Learning Program for the Deaf/Hard of Hearing, Nashua**
Phone Numbers: Preschool-5th 603-966-3620; 6th-8th grades 603-594-4393; High school 603-589-4311
Based in a typical neighborhood school. American Sign Language is used with the students along with speech supported with sign language. Students may receive services depending on the needs of each child, such as Educational Interpreters, Occupational Therapy, School Nurse, Physical Therapy, Teacher of the Visually Challenged, School Counselor, School Psychologist, Educational Audiologist and Speech Pathologist. All students receive services from a Teacher of the Deaf.

Unique Educational Needs of Deaf and Hard of Hearing Students

IDEA (Individuals with Disabilities Education Act):

In 2004, Congress reauthorized the IDEA and specified the need to consider the child's communication needs and that the plans for children with hearing loss must address assistive technology needs, related services, communication needs, and extended school year services. The IDEA states the IEP team shall consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child's language and communication needs, opportunities for direct communications with peers and professional personnel in the child's language and communication mode, academic level, and full range of needs, including opportunity for direct instruction in the child's communication mode.

Congress added that deaf and hard of hearing children must have access to all the communication that occurs in school, not just from the teacher in the classroom but from classmates and other school staff as well. The National Association of State Directors of Special Education (NASDSE) published their third edition of educational guidelines for serving students who are deaf and hard of hearing in 2018 titled “**Optimizing Outcomes for Students who are Deaf or Hard of Hearing: Educational Service Guidelines.**” The guidelines provide guidance to school districts to appropriately address the needs of students who are deaf and hard of hearing and are available at the following link: <http://www.nasdse.org/docs/nasdse-3rd-ed-7-11-2019-final.pdf>



The following questions address factors for you to consider when determining the best program to meet your child's needs:

1. Do the professionals understand the effects of your child's hearing loss?

3. Can the professionals help develop effective communication and parent-child interaction for me?

5. Have I been provided with information about hearing loss, assessment, sensory devices, communication techniques, educational options, and Deaf community resources?

2. Will you meet deaf and hard of hearing adults, children, and their families through this program?

4. Can the professionals provide the information, education, and emotional support my child and family need?

6. Do I have sufficient information about parents' rights and my child's right to an education?

7. Does the program ensure that my child's unique communication needs are met and does it offer an environment that is completely accessible to him/her?

8. Are developmentally appropriate practices used? Will the program and/or service meet my child's needs based on age and developmental level?

Options Outside of Special Education

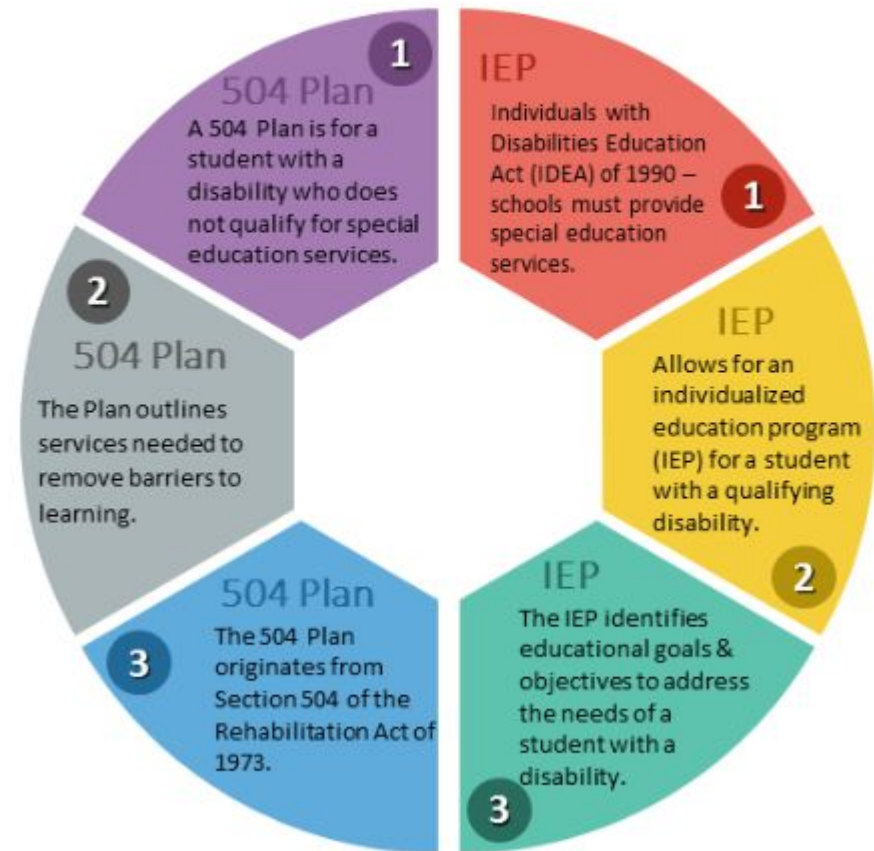
It is possible that your child will not qualify for special education if the team determines upon reviewing the evaluation results that he/she does not meet the eligibility criteria for special education. If he/she does not qualify for special education but needs accommodations in order to access the curriculum, you should request an evaluation for a 504 accommodations plan. Wrightslaw describes Section 504 and a 504 plan as follows.

Section 504 is a civil rights law that prohibits discrimination against individuals with disabilities. Section 504 ensures that the child with a disability has equal access to an education. The child may receive accommodations and modifications.

Unlike the [Individuals with Disabilities Education Act \(IDEA\)](#), Section 504 does not require a public school to provide an Individualized Educational Program (IEP) that is designed to meet a child's unique needs and provide the child with educational benefit. Under Section 504, fewer procedural safeguards are available to the child with a disability and the child's parents than under IDEA.

<https://www.wrightslaw.com/info/sec504.index.htm>

The 504 Plan vs. The IEP



https://www.nhdeafed.org/504_iep/

The Future

At the end of preschool, typically age five, your child will transition to elementary school for kindergarten. By that time, you will have a great deal of information about your child's needs and your need to advocate to ensure that his/her needs are met in the appropriate placement.



Resources

This section will include various resources to support you and your family and will cover the following topics:

- Diagnostic testing
- Audiological services
- NH programs and services
- Other organizations and programs

Diagnostic Center

The New Hampshire Early Hearing Detection and Intervention (EHDI) Program has an approved list of diagnostic centers. The centers listed below are typically used for identifying hearing loss in infants ages 0 to 6 months of age who have not passed their newborn hearing screen. These facilities have the specialized equipment and staff to perform a diagnostic audiological evaluation. If an infant refers on the newborn hearing screening, follow-up should include a comprehensive audiologic evaluation to be performed by audiologists experienced in pediatric hearing assessment. This evaluation requires specialized equipment and a specific test protocol.

If you need assistance scheduling an appointment for your infant, contact the New Hampshire Early Hearing Detection and Intervention Program (EHDI) at (603) 271-4521, or NHNewbornHearing@dhhs.nh.gov.

New Hampshire Centers	Address	Phone	Fax
Dartmouth Hitchcock (Lebanon) Audiology Department, 4F	One Medical Center Dr. Lebanon, NH 03756	603-650-8123	603-676-4086
Elliot Pediatric Audiology	275 Mammoth Rd. Unit 1 Manchester, NH 03103	603-663-3222	603-663-3229

Audiological Services

Audiological testing for older infants (7 months or older) and toddlers is available throughout the state. Please check with your primary care provider for possible referral sites. Please confirm that the audiology practice is set up to provide testing for the young pediatric population when scheduling an appointment.

If you need assistance locating an audiologist, please contact the New Hampshire Early Hearing Detection and Intervention Program (EHDI) at (603) 271-4521, or NHNewbornHearing@dhhs.nh.gov.

NH Programs and Services

- **Family-Centered Early Supports and Services**

<https://www.dhhs.nh.gov/dcbcs/bds/earlysupport/documents/directory.pdf>

Statewide early intervention services for families with deaf and hard of hearing infants from birth to age three with service coordination provided at regional area agencies.

- **Hands & Voices (New Hampshire Chapter)**

<https://www.facebook.com/groups/478021235703799/>

<https://nhhandsandvoices.com/>

Email: HandVNH@gmail.com

New Hampshire Hands & Voices is dedicated to supporting families in New Hampshire with children who are deaf, hard of hearing, or have any form of hearing loss without bias regarding communication mode or methodology.

- **New Hampshire Association of the Deaf**

<https://www.facebook.com/newhampshireassociationofthedeaf/>

An organization of and for the Deaf Community in New Hampshire.

- **New Hampshire Department of Education**

<https://www.education.nh.gov/>

Phone: 603-271-3741

The Department Education, Bureau of Special Education is responsible for the oversight and implementation of educational programs for students with disabilities between the ages of three and 21. The Department and Bureau provides funding for initiatives and technical assistance and support regarding special education and deaf education.

- **New Hampshire Early Hearing Detection & Intervention Program (EHDI)**

<https://www.dhhs.nh.gov/dphs/bchs/mch/hearing.htm>

Email: Courtney.Keane@dhhs.nh.gov

A statewide, family-centered, newborn hearing screening program coordinated across New Hampshire; located in the New Hampshire Department of Health and Human Services, Division of Public Health Center, Maternal and Child Health Section.

- **New Hampshire Family Voices**

<https://nhfv.org>

Phone: 603-271-4525

Email: nhfamilyvoices@nhfv.org

Provides free, confidential services to families and professionals caring for children with chronic conditions and/or disabilities. Empower and inform families and professionals to feel confident when making choices for children and youth in their care. Have an extensive lending library where materials are sent to families at no charge.

- **Northeast Deaf and Hard of Hearing Services (NDHHS)**

www.ndhhs.org

Phone: (603) 224-1850

Email: info@ndhhs.org

Centralized organization for all services related to Deaf and Hard of Hearing individuals including education, communication access, family sign language, and early intervention. Has an outreach team of professionals (e.g. teachers of the deaf, educational audiologists, SLPs, etc.) to support the needs of deaf and hard of hearing students and their families.

- **Parent Information Center of New Hampshire (PIC)**

www.picnh.org

Phone: 603-224-7005

PIC is a statewide organization striving to achieve positive outcomes for children and youth with disabilities and special health care needs. They offer trainings/workshops on special education law.

- **Southeastern Regional Educational Service Center (SERESC)**

<https://www.seresc.net/system-level-services>

Phone: 603-206-6800

Nonprofit educational service agency located in Bedford, NH. SERESC's mission is to find innovative solutions for the student and systems-level challenges of New Hampshire's K-12 schools, as well as its preschool and afterschool programs. Offers hearing services provided by teachers of the deaf.

- **Strafford Learning Center**

<https://www.straftordlearningcenter.org/services-and-supports/hearing-services>

Phone: 603-692-4411

Provides itinerant Teachers of the Deaf and Hard of Hearing to member and nonmember school districts in need of educational support for students who are deaf or hard of hearing ranging from 3-21 years of age.

Other Organizations and Programs

- **Alexander Graham Bell Association**

www.agbell.org

An organization dedicated to advocacy and support for deaf and hard of hearing persons and the use of listening and spoken language.

- **American Society for Deaf Children (ASDC)**

www.deafchildren.org

ASDC is an organization for people who must make decisions about deaf children such as parents, providers, educators, legislators, and advocates. They provide resources for visual language and support for children's development.

- **BEGINNINGS for Parents and Children Who are Deaf or Hard of Hearing**

<http://ncbegin.org>

An organization that provides emotional support and access to information for families with deaf and hard of hearing children.

- **Boston Children's Hospital, Deaf and Hard of Hearing Program**

www.childrenshospital.org/centers-and-services/programs/a--e/deaf-and-hard-of-hearing-program

Provides comprehensive evaluations and consultative services to deaf and hard of hearing children.

- **Boys Town National Research Hospital (Hearing Services)**

www.boystownhospital.org

An internationally recognized leader in hearing research that also provides information and services on a variety of issues pertinent to children who are deaf or hard of hearing.

- **Camp Mark Seven**

www.campmark7.org

A retreat in the Adirondack Mountains of New York with an array of educational, recreational, and spiritual programs for deaf, hard of hearing, and KODA/CODA individuals.

- **Cochlear Implant Awareness Foundation**

www.ciafonline.org

An organization that raises awareness of how cochlear implants restore sound to deaf individuals and provide cochlear implant equipment to qualified individuals.

- **Dorothy Ames Trust Fund; Key Bank Trust Client Services**

PO Box 22042

Albany, NY 12201

866-238-8650

https://www.needymeds.org/copay_aos.taf?_function=detail&program_id=654

Provides grants to assist families in New England to purchase hearing aids and auditory training equipment for deaf children to further their use of spoken language.

- **Gallaudet University Northeast Regional Center**

<https://www.necc.mass.edu/gallaudet/>

The Northeast Regional Center offers workshops, conferences, youth programs, technical assistance, and consultation related to deaf and hard of hearing individuals to communities throughout the northeastern United States including New Hampshire.

- **Hands & Voices**

www.handsandvoices.org

A national nonprofit parent organization that provides unbiased support for families of deaf and hard of hearing children and professionals.

- **Hearing Aid Project**

<https://hearingaiddonations.org/>

Provides hearing aids for individuals who are unable to purchase hearing aids themselves.

- **Hearing Loss Association of America (HLAA)**

www.hearingloss.org

Provides support to members who have hearing loss so they can live more successfully with hearing loss including support for the creation of state and local chapters.

- **Helen Keller National Center for Deaf-Blind Youths and Adults**

www.hellenkeller.org

Provides training and resources to people age 16 and older who have combined vision and hearing loss from across the United States at the headquarters in Sands Point, New York and in regional programs throughout the country.

- **John Tracy Clinic**

www.jtc.org

The John Tracy Clinic is located in Los Angeles, California but also provides support services to families with deaf and hard of hearing children across the United States and internationally.

- **Laurent Clerc National Deaf Education Center**

www3.gallaudet.edu/clerc-center.html

This center includes two federally funded schools, Kendall Demonstration Elementary School and the Model Secondary School for the Deaf on the campus of Gallaudet University. The Center creates a great deal of materials, curricula and other supports for schools and individuals providing services to deaf and hard of hearing children of all ages.

- **LEAD-K (Language Equality & Acquisition for Deaf Kids)**

<http://www.lead-k.org/>

LEAD-K is a campaign involving many organizations across the United States to address the problem of having deaf and hard of hearing children begin school without language (referred to as language deprivation).

- **National Association of the Deaf (NAD)**

www.nad.org

NAD is the national's premier civil rights organization of, by, and for deaf and hard of hearing individuals in the United States.

- **National Center for Hearing Assessment and Management**

www.infanthearing.org

Located at Utah State University, the Center conducts research, training, and technical assistance to ensure that infants and toddlers with hearing loss are identified as early as possible and are provided with timely services that the child needs in order to meet developmental goals.

- **National Cued Speech Association**

www.cuedspeech.org

An organization that supports effective communication, language development, and literacy in families with deaf, hard of hearing, or learning disabled infants, children and youth through the use of cued speech.

- **National Institute on Deafness and Other Communication Disorders (NIDCD)**

www.nidcd.nih.gov

The NIDCD is a federal program that conducts research and provides information related to hearing and hearing loss. It is within the National Institutes of Health and has a health-related focus.

- **National Theater of the Deaf**

<https://ntd.org/>

A theater company comprised primarily of deaf actors that provides theatrical performances in American Sign Language.

- **New England Consortium on Deafblindness (NEC)**

<https://www.perkins.org/nec/>

Represents a consortium of consultants, state and regional partners who share a commitment to evidenced-based approaches to support children and youth with combined vision and hearing loss (deafblindness). Serving the states of Connecticut, Maine, Massachusetts, New Hampshire, and Vermont, they are committed to supporting families, professionals, and the wider community in the delivery of services that result in improved educational outcomes.

- **Oberkotter Foundation**

www.oberkotterfoundation.org

A foundation that provides grants to support programs that use the listening and spoken language model.

- **OPTIONS Schools**

<https://www.optionschools.org/>

An organization comprised of schools using the listening and spoken language approach throughout the United States, Canada, and South America.

- **SEE Center for the Advancement of Deaf Children**

<https://seecenter.org/>

The Signing Exact English (SEE) Center provides training and support to further skills in Signing Exact English, a sign system representing English.

- **Starkey Hearing Foundation (Hear Now)**

www.starkeyhearingfoundation.org

An organization that helps people around the world to get hearing aids.

- **Supporting Success for Children with Hearing Loss**

<http://successforkidswithhearingloss.com>

An organization and website that provides information, training, and publications related to the provision of educational and related services to deaf and hard of hearing students attending public schools.

- **The Hike Fund, Inc. (The Hearing Impaired Kids Endowment Fund)**

<http://www.thehikefund.org/>

A national fund that provides assistive listening devices for children and to organizations serving children who are deaf or hard of hearing.

Service Organizations

Many service organizations assist individuals in obtaining hearing aids. A list of service organizations is below. Contact the organizations in your area to request assistance.

American Legion	Masonic Lodge
Elks Club	Moose Lodge
Kiwanis	Optimist Club
Knights of Columbus	Quota Club
Lions Club	Rotary Club

Northeast Deaf and Hard of Hearing Services (NDHHS) has updated this manual for families with the support of the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under H61MC00034, Universal Newborn Hearing Screening Program. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, or the U.S. Government.

Please contact Northeast Deaf and Hard of Hearing Services at any time when you are seeking information or services.

Website: www.ndhhs.org

Facebook: <https://www.facebook.com/NDHHSInc>

Address: 56 Old Suncook Dr. Suite 6
Concord, New Hampshire 03301

Telephone: 603-224-1850

Videophone: 603-968-5889

You can also call the Early Hearing Detection and Intervention (EHDI) program within the New Hampshire Department of Health and Human Services for information.

Their contact information is as follows:

Courtney Keane, MS

Newborn Screening Program Manager

Maternal and Child Health Section

New Hampshire Department of Health and Human Services

Division of Public Health

Courtney.Keane@dhhs.nh.gov



New Hampshire Department of
Health & Human Services
Division of Public Health Services
Maternal and Child Health Section