

Virginia's Resource Guide

for Families of Children with Hearing Loss



The best and most beautiful things in the world cannot be seen or even touched – they must be felt with the heart. | Helen Keller



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Virginia's Resource Guide for Families of Children with Hearing Loss is a product of the Center for Family Involvement at the Partnership for People with Disabilities, located at Virginia Commonwealth University. Funding for development and distribution is supported in part by the Virginia Department of Health and by the Maternal Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services.

This year's revision could not have been possible with the support of many special people especially Dr. Lori Bobsin, Dr. Christine Eubanks, Jessica Fleenor, Jessica Nicholson, Dr. Ashleigh Greenwood, Gayla Guignard, Dr. Thomas Holcomb, Ann Hughes, Janet Knust, Mary Lib Morgan, Pam Noakes, Lisa Powely, Dr. Marilyn Sass-Lehrer, Eric Schmalz, Kathleen Watts, and Dana Yarbrough. Special thanks from my heart for all of the families with deaf and hard-of-hearing children who are also part of this book.

Welcome

Eric, Age 4



Eric, Age 24



Congratulations for taking a few moments to look in the revised Parent Resource Guide! If you have just recently found out about your child's hearing loss or know of a child that has been recently diagnosed with a hearing loss you are on the right track to finding more information for Virginia residents.

Knowledge is power! Being informed in the area of deafness/hard of hearing and teaching your child or children with hearing losses to be independent is important. Being an advocate is truly a gift you can give them.

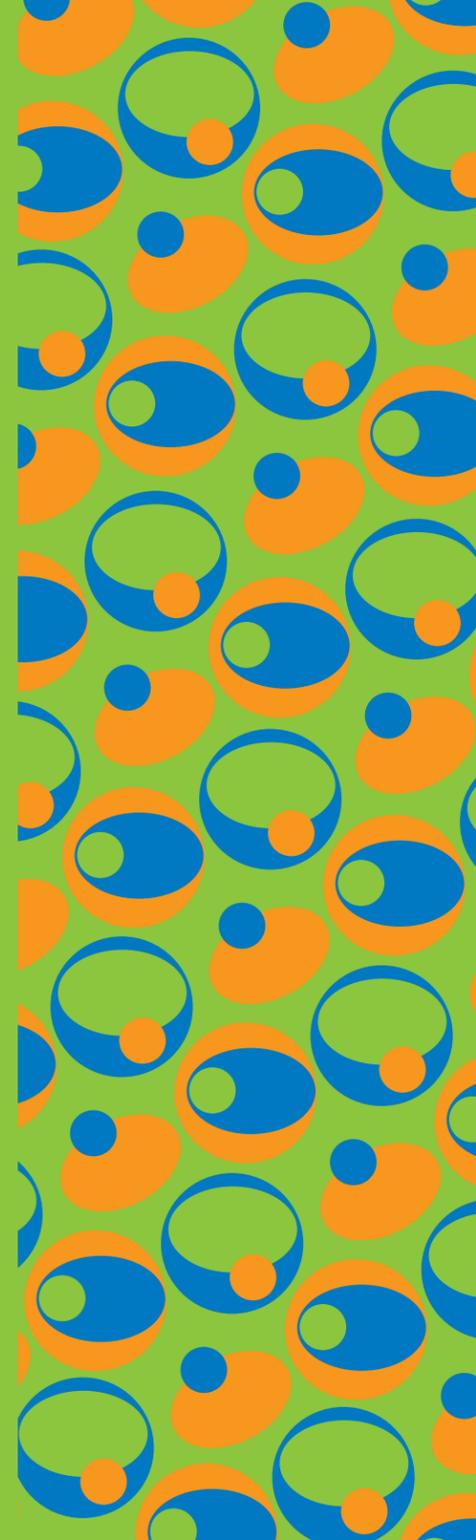
As some of you know, I have a severe to profound hearing loss since birth and have worn hearing aids since I was three years old. You may also know that my son, Eric, was identified with a severe to profound hearing loss shortly after his first birthday. He was fitted with hearing aids just before his second birthday. It was a lot of work for Eric but his work has paid off for him in his professional career.

My hope is that you will find something in this resource guide that will help you and your family. Please continue to seek all of the resources that you can find – you will be glad that you did!

Technology is constantly changing, however, the importance of communicating with your child and allowing access to language cannot be overlooked. The communication section has been updated to help enhance the lifelong communication and language process.

— Irene Schmalz
July 2016

Laughter is the shortest distance
between two adults. | Victor Borge,
Danish pianist and comedian



Dedication



My mother was my first teacher – it is because of her love and all of her efforts with me that I dedicate this revision of the Resource Guide.

— Irene Schmalz

Remembrance

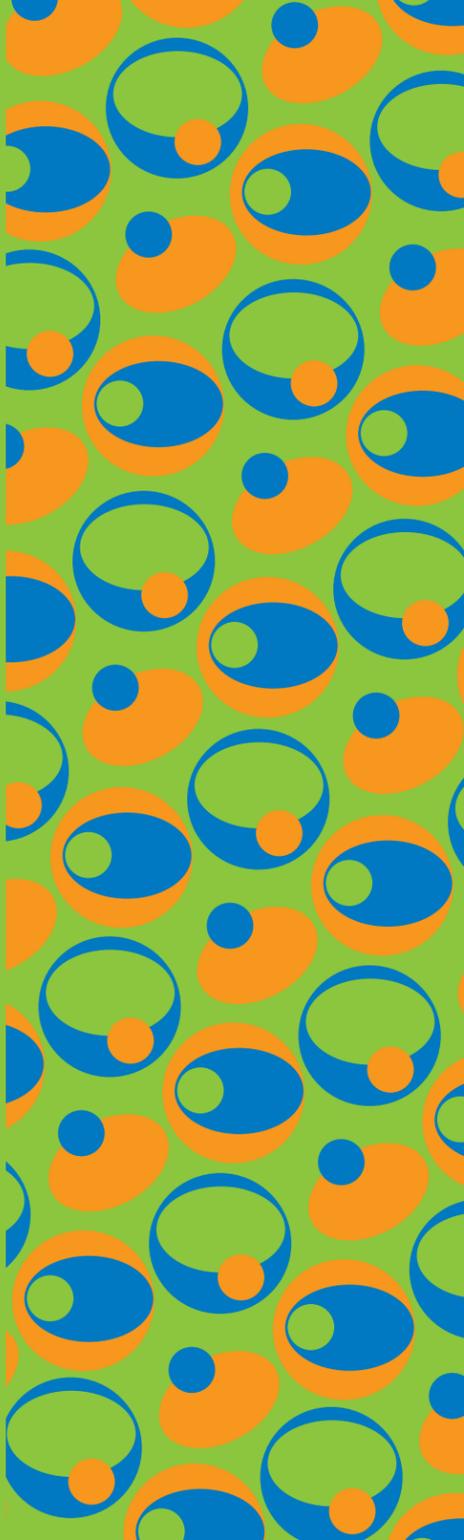


The 2013 Resource Guide was dedicated to Regina Craig and today we continue to follow her footsteps. Regina Craig passed away in 2011 following a courageous battle with cancer. Regina was the Program Coordinator for the Virginia Guide By Your Side program from 2009 – 2011, reaching out to hundreds of parents who had just received the news that their child was deaf or hard-of-hearing. In addition to helping other parents, her most treasured role was as the parent of her daughter, Sarah.

Regina often recalled that, “their journey together seeking effective communication began with Sarah’s diagnosis of hearing loss and has been one filled with a variety of emotions: fear, grieving, hope, confusion, frustration, determination, joy, patience, peace, acceptance and above all love.”

Today Sarah is studying to be a nurse while working at two part-time jobs. On June 16, 2016 John Eisenberg of the VA Department of Education presented Sarah with a Certificate of Appreciation for all of her ground-breaking work with VDOE’S I’m Determined project as a Youth Leader over the past decade. Her mother would certainly be proud!





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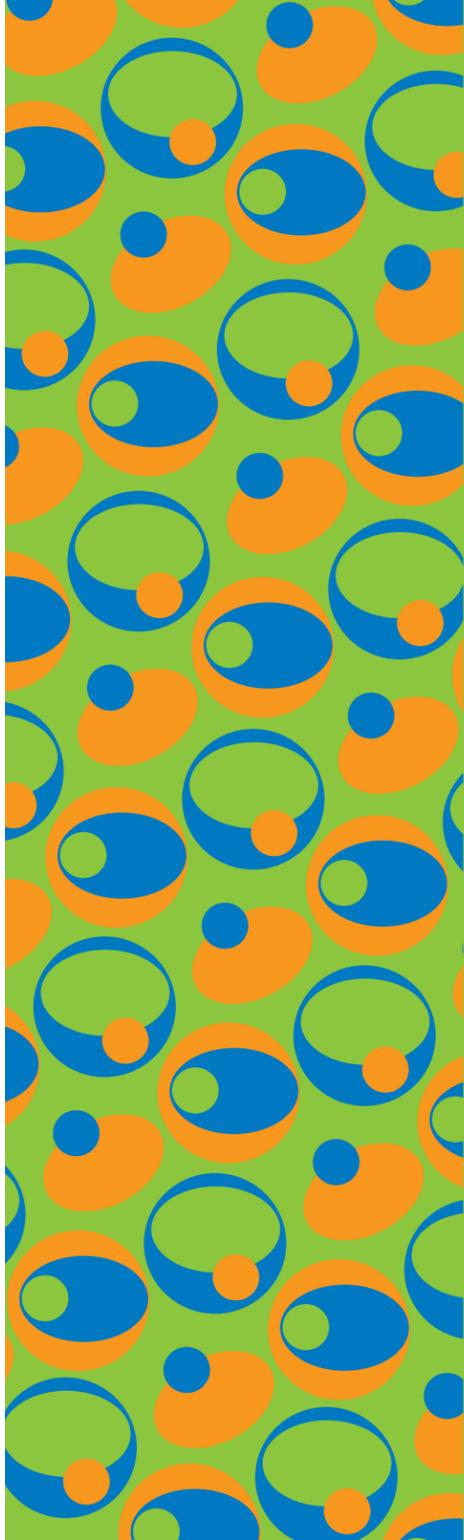
Notes & Information

Need More Information?

Flip to the Glossary & Resources section on page 65 for common terminology, helpful organizations and web sites to answer your questions.

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Lined writing area for notes on the right side of the page.



Hearing: An Overview

Remember 1-3-6

- 1 – Screen for hearing loss before one month of age
- 3 – Diagnose hearing loss before three months of age
- 6 – Enroll in early intervention programs before six months of age



What is the difference between hearing screening tests and diagnostic tests?

A hearing screening test is when a device (such as OAE, ABR) provides sound at different pitches and levels that a person with normal hearing would hear or a normal auditory system would respond to. If a baby's responses are within a normal range, they pass the screen. The screening doesn't give comprehensive information about hearing – the baby might be able to hear much softer sounds, or might just barely hear the test sound. If the responses aren't within that test range, we can't say whether there is a mild or profound loss, or whether it's a middle ear problem or an inner ear problem. It just means that the baby needs a diagnostic test.

A diagnostic test is when you determine the very softest sounds a baby will respond to, at all the different pitches of interest. During the diagnostic evaluation the pediatric audiologist will analyze and compare several tests, such as air and bone conduction ABR, OAE, and tympanometry to determine what level and type of hearing loss the baby may have.

— Christine Eubanks, PhD, Audiologist

Newborn Hearing Screening Tests & Hearing Tests for Children

The **ABR** involves placing electrodes on your child’s head, and reading the brainwave responses to sounds – similar to an EKG reading of your heart rhythm.

The **OAE** is even easier. An earplug is placed in your child’s ear and the ear’s responses to test tones are recorded. Your child just has to be quiet for this test, either awake or asleep.

Tympanometry is also an earplug in the ear, and gentle pressure is used to see how well the eardrum is moving.

“Behavioral” tests are where your child’s responses to sounds are observed by watching the child’s reactions (e.g. looking to see where the sound is coming from, being startled by a loud sound, pointing to body parts). If your child is crying or uncooperative, the audiologist may not be able to say for sure whether your child heard the sounds. The Auditory Brainstem Response (ABR), Otoacoustic Emissions (OAE), and Tympanometry tests are “objective tests,” which means that the responses can be measured without your child’s cooperation – which often means that the child has to be asleep.

None of these tests are risky or painful. Each of these tests measures a different part of the auditory system, so they all have to be taken together to know whether your child has a hearing loss, how much loss exists, and whether it is permanent or temporary (like an ear infection). Intervention to emphasize speech and language development is necessary, so that progress can be assessed. Lack of progress means either that the hearing thresholds have changed, or that the hearing aid is not providing enough amplification. If the aids are fit to accurate hearing thresholds, but don’t provide enough information for auditory development, then the child would be considered a cochlear implant candidate.



ABR



OAE

www.infanthearing.org



Tympanometry

John Tracy Clinic

Making History

Eric Schmalz



Eric Schmalz graduated college with a history degree and graduate school with a Master of Teaching in Secondary Social Studies. He taught social studies for three years at a public high school. He loves teaching in the classroom, but found he loves the museum industry even more. Today, Eric works at the United States Holocaust Memorial Museum in Washington, D.C. He joined the staff at the museum because he is passionate about social justice, learning and teaching history, and building community.

Eric is the community manager for a project called *History Unfolded: US Newspapers and the Holocaust* (newspapers.ushmm.org). The museum is calling on the community to help discover how the American press covered the Holocaust and how people reacted. As a community manager, Eric works to cultivate and maintain a vibrant network of citizen historian researchers.

If any member of the public wants to contribute, Eric would love to have your help on his project. He is looking for more articles about the deaf and hard of hearing communities in the US and Europe during the Holocaust. If you have any articles or would like to research, please contact him at eschmalz@ushmm.org or 202-382-0211.

In his spare time, Eric loves to play violin, dance, stargaze, watch the Simpsons, and support the Green Bay Packers.

Success Stories

In the following pages are success stories from deaf or hard of hearing children.

When Eric was identified with a hearing loss just before his first birthday, I wondered what the future was going to be like for him. On this journey, I have met other parents with children of hearing losses, and the beautiful part is that I am still in touch with them over all of these years...

I hope you are inspired reading these success stories and that it will give hope for you and your family!

— Irene Schmalz



www.wpsd.org



Surrounded By Love

We are so thankful that the doctors were able to identify Josie's loss so early. When she failed her newborn hearing screening tests right off the bat, we were told it wasn't abnormal. We'd try again later and hope for better. As she continued to fail her hearing screenings, and eventually we confirmed her loss by an audiologist, we became worried for Josie's future.

It has been an enormous source of comfort for us to discover that there are others, like us, in our community bravely going through the same challenges we face, as well as to learn about the helpful county-provided services out there for which Josie is eligible. It has enabled us to be on the path to providing all that we can to ensure she receives everything available to her.

The Song Family

We've only just begun this journey together as a family, and it's all been a bit scary and exciting so far, but it's good to have a vision of what we can expect along the way and to know we're not alone in this journey. We are thrilled that Josie's older sisters absolutely adore her. We know they will be her biggest fans, supporters, and advocates. She is surrounded by love and that's the ultimate success.

Studying How Hearing Works

Hearing Loss

Hearing loss can happen when any part of the ear or auditory (hearing) system is not working in the usual way.

Outer Ear – the outer ear is made up of:

- the part we see on the sides of our heads, known as the pinna
- the ear canal
- the eardrum, sometimes called the tympanic membrane, which separates the outer and middle ear

Middle Ear – the middle ear is made up of:

- the eardrum
- three small bones called ossicles (malleus, incus, stapes) that send the movement of the eardrum to the inner ear

Inner Ear – the inner ear is made up of:

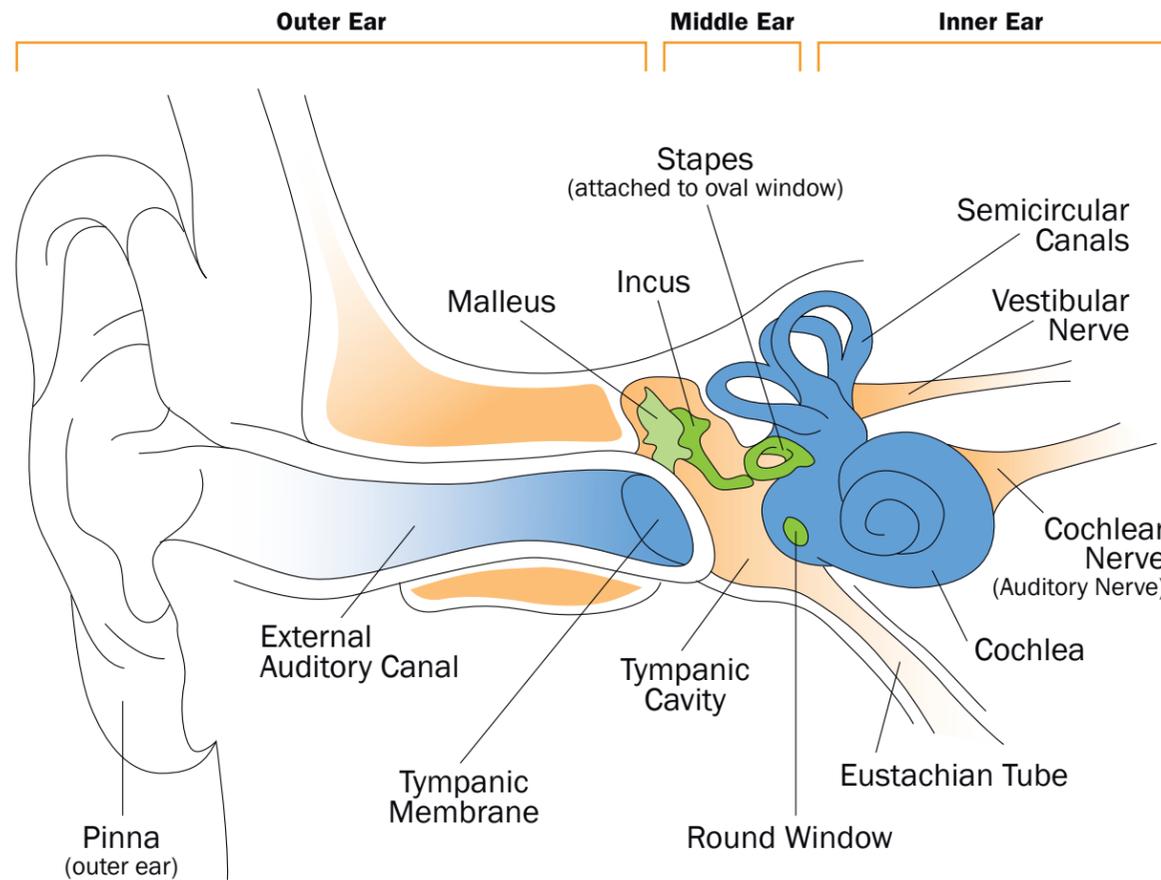
- the snail shaped organ for hearing known as the cochlea
- the semicircular canals that help with balance
- the nerves that go to the brain: the Vestibular Nerve, which gives information about balance, and the Cochlear Nerve (also known as auditory or acoustic nerve), which sends sound information from the ear to the brain.

Auditory (Hearing) System – the auditory system processes sound information as it travels from the ear to the brain, so our brain pathways are part of our hearing.



What Hearing Looks Like: The Anatomy of an Ear

The auditory system is broken up into three areas: the outer, middle and inner ear. Sound enters the ear through the outer ear, causing the tiny bones (malleus, incus and stapes) in the middle ear to vibrate. These vibrations are conducted to the cochlea, which transforms the sound into nerve impulses and sends them to the brain.



There Are Four Types of Hearing Loss:

- **Conductive Hearing Loss**
Hearing loss caused by something that stops sounds from getting through the outer or middle ear and being “conducted” to the inner ear. This type of hearing loss can often be treated with medicine or surgery.
- **Sensorineural Hearing Loss**
Hearing loss that occurs when there is a problem in the way the inner ear or hearing nerve works.
- **Mixed Hearing Loss**
Hearing loss that includes both a conductive and a sensorineural hearing loss.
- **Auditory Neuropathy Spectrum Disorder or Auditory Dysynchrony**
Hearing loss that occurs when sound enters the ear normally, but because of damage to the inner ear or the hearing nerve, sound isn’t organized in a way that the brain can understand. For more information on Auditory Neuropathy: www.nidcd.nih.gov/health/auditory-neuropathy

The Degree Of Hearing Loss Can Range From Mild To Profound

- **Mild Hearing Loss**
A person with a mild hearing loss may hear some speech sounds but soft sounds are hard to hear.
- **Moderate Hearing Loss**
A person with a moderate hearing loss may hear almost no speech when another person is talking at a normal level.
- **Severe Hearing Loss**
A person with severe hearing loss will hear no speech when a person is talking at a normal level and only some loud sounds.
- **Profound Hearing Loss**
A person with profound hearing loss will not hear any speech and only very loud sounds.

Hearing Loss Can Also Be Described As:

- **Unilateral or Bilateral**
Hearing loss is in one ear (unilateral) or both ears (bilateral).
- **Pre-lingual or Post-lingual**
Hearing loss happened before a person learned to talk (pre-lingual) or after a person learned to talk (post-lingual)
- **Symmetrical or Asymmetrical**
Hearing loss is the same in both ears (symmetrical) or is different in each ear (asymmetrical).
- **Progressive or Sudden**
Hearing loss worsens over time (progressive) or happens quickly (sudden).
- **Fluctuating or Stable**
Hearing loss gets either better or worse over time (fluctuating) or stays the same over time (stable).
- **Congenital or Acquired/Delayed Onset**
Hearing loss is present at birth (congenital) or appears sometime later in life (acquired or delayed onset).

Source: www.cdc.gov/ncbddd/hearingloss/types.html

Understanding Hearing Loss

In order to understand hearing loss, it helps to understand how we hear. Sounds are described in terms of their frequency, known as “pitch,” and intensity, known as “loudness.” See: www.cdc.gov/NCBDDD/hearingloss/sound.html



Causes, Risk Factors & Characteristics

- Genes are responsible for hearing loss among 50% to 60% of children with hearing loss. About 20% of babies with genetic hearing loss have a “syndrome” (for example, Down syndrome or Usher syndrome).
- Infections during pregnancy in the mother, other environmental causes, and complications after birth are responsible for hearing loss among almost 30% of babies with hearing loss.
- Congenital cytomegalovirus (CMV) infection during pregnancy is a preventable risk factor for hearing loss among children.* 14% of those exposed to CMV during pregnancy develop sensorineural hearing loss (SNHL) of some type. About 3% to 5% of those exposed to CMV during pregnancy develop bilateral moderate-to-profound SNHL.
- About one in every four children with hearing loss also is born weighing less than 2,500 grams (about 5 1/2 pounds)
- Nearly one-quarter of children with hearing loss has one or more other (additional) developmental disabilities, such as cerebral palsy, intellectual disability, or vision loss.

Source: www.cdc.gov/ncbddd/hearingloss/data.html



*Infants who have congenital hearing loss may be identified by newborn hearing tests at birth. Infants with possible congenital infection, but normal hearing at birth, should have hearing monitored every 6 months until 3 years.

About Congenital Cytomegalovirus (CMV)

CMV is preventable. CMV commonly passes through shedding of the virus in urine and saliva, particularly in preschool-aged children. A pregnant woman may reduce her exposure to CMV by the following:

- Do not kiss young children on the lips
- Do not share objects by putting things or food that have been in the child’s mouth (spoons, pacifiers, cups) in your mouth
- Do wash your hands after wiping a child’s nose or mouth or changing diapers.
- Do not share a toothbrush

Source: www.nationalcmv.org

Sweet Music — David’s Story

David Cluff

His family’s voices are sweet music to the ears of 16-year-old David Cluff.

Those voices, as well as music overall, are two of the sweetest sounds he hears since receiving a cochlear implant at St. Louis Children’s Hospital.

David was born with cytomegalovirus (CMV), a common virus that rarely causes obvious illness. However, it can damage the nervous system, including causing hearing loss, as it did in David. At age 4, he was fitted for hearing aids, and by age 6 he was completely deaf.

David received his first cochlear implant in 1999 in Salt Lake City, Utah. The Cluff family moved from Utah to Pacific, Mo., in 2000. He received his second cochlear implant at St. Louis Children’s Hospital.

Cochlear implants are surgically placed devices with externally worn components designed to provide hearing to those who are profoundly deaf and aid them in communicating. The Cochlear Implant Program at St. Louis Children’s Hospital is jointly offered by the hospital and the Washington University Department of Otolaryngology.

Washington University School and Medicine and St. Louis Children’s Hospital have completed more than 550 pediatric cochlear implant surgeries since the mid 1980s, including a rapidly-increasing number of bilateral cochlear implantations, or two implants.

“My mom says that when I got my first implant, I came to life again,” David says. “If implants were not available, I know I would have adjusted to silence. But implants have been a miracle. They have given me the opportunity to help others.”

David uses every opportunity to help. He leads the St. Louis Children’s Hospital Cochlear Implant Teen Support Group. He also is a Boy Scout patrol leader, and does service activities with his church. He enjoys spending time with family, reading, photography and drawing.

As support group leader, he helps plan activities like pizza parties and bowling. The group also hosted a panel of deaf adults with implants. “One of the main points is to help other families and teens who have questions about implants,” David says. “It’s also a chance to meet these awesome teens.”



Source: www.stlouischildrens.org/about-us/meet-our-patients/sweet-music-davids-story

David says his deafness rarely holds him back. “I realize I can do anything I set my mind to. I feel the same as those around me. I may look different with things sticking on my head, but I try to make the best of it everyday.”

He and his family appreciate the St. Louis Children’s Hospital audiology team. “I am very grateful for the audiology team who opened the door for me to receive a second Implant,” David says. “The audiologists and other staff do so much to help me.”

The audiology team is equally impressed with David.

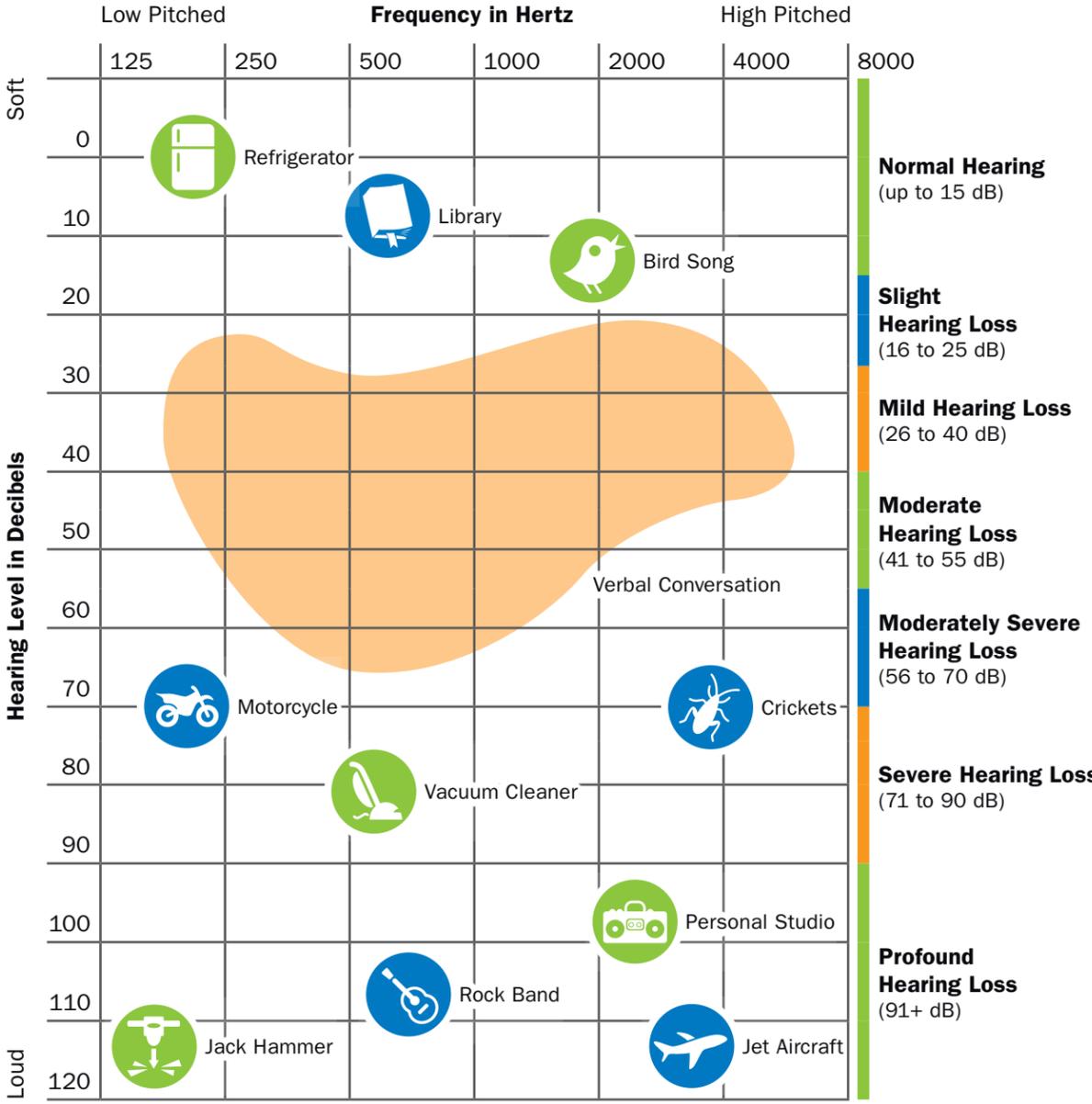
“David does not let hearing loss get in his way,” says Jamie Cadieux, St. Louis Children’s Hospital audiologist. “He has taken advantage of medical technology, worked hard to improve his listening and speech skills, taught other people about hearing loss, and lived his life as if he were a hearing person. He is a leader and an inspiration.”

David’s advice to those who can hear – “It’s quiet world when you are deaf,” he says. “Even just smiling can put a spark in someone’s eyes. One of the things I appreciate the most is when my hearing friends are patient when I don’t understand something they said. I am grateful when people will repeat things and not just say ‘never mind’.”

David would like to become an audiologist. “I know what it is like to have an implant and I know the best of both worlds,” David says. “I love working with kids and families and I want to help them in any way I can.”

At his young age, he already has helped many.

Frequency & Intensity of Familiar Sounds



Hearing Loss: What It Is & What It Sounds Like

For more details about Hearing Loss and hearing thresholds, visit: successforkidswithhearingloss.com/demonstrations/



Being Deaf or Hard of Hearing — Degrees & Sounds



What Does Level of Hearing Loss Mean?

Degree of hearing loss refers to the severity of loss. The following chart was created to help explain what sounds your child can and cannot hear without amplification based on the degree of hearing loss. The loudness of sound is measured in units called decibels (dB). Your child's audiologist, speech-language pathologist, teacher, or other trained professional will be able to provide you with more detailed information.

Levels of Hearing Loss		
Slight Hearing Loss	16 – 25 dB	At 16 dB hearing loss, a child can miss up to 10% of speech signal when a speaker is at a distance greater than 3 feet. This category often encompasses the children with fluctuating conductive hearing loss, so these effects are often underestimated.
Mild Hearing Loss	26 – 40 dB	A child with a mild hearing loss may hear some speech sounds but soft sounds are hard to hear. An example of a sound they cannot hear is whispering, which is around 40 dB. They also cannot hear some soft speech sounds even when spoken at a normal level. At 40 dB child may miss 50% of classroom discussions.
Moderate Hearing Loss	41 – 55 dB	A child with a moderate hearing loss may hear almost no speech when another person is talking at a normal level. Sounds that are loud to a normal hearing child will be a whisper to children with this amount of hearing loss. At 50 dB hearing loss a child may miss up to 80% of speech signal.
Moderately Severe Hearing Loss	56 – 70 dB	A child with a moderately severe hearing loss may have problems hearing sounds softer than 56-70 dB. An example of a sound at this level is a dishwasher (60 dB).
Severe Hearing Loss	71 – 90 dB	A child with severe hearing loss will hear no speech when a person is talking at a normal level and will hear only some loud sounds. Examples of sounds they may not hear are a vacuum (70 dB), or a blender and a hair dryer (90 dB).
Profound Hearing Loss	91+ dB	A child with a profound hearing loss will not hear any speech and only very loud sounds. Children with profound hearing loss cannot hear sounds softer than 91 dB. Examples of this are MP3 players with the volume turned up all the way (100 dB) and car horns (110 dB).

Sources: kidshealth.org/ChildrensMercy/en/parents/hear.html?WT.ac=p-ra#
Clark, J. G. (1981). Uses and abuses of hearing loss classification. *Asha*, 23, 493-500.

From Ancient Greek to ASL, Morris Has a Way With Words

Brittany Morris

She may have only been 9 years old, but when Brittany Morris found a copy of Alison Weir's "The Six Wives of Henry VIII," she became captivated by the lurid tales and intrigues of the court of Henry VIII. She has pursued European history ever since.

The University of Virginia first-year student has delved into the classical and medieval worlds from her first day on Grounds, taking courses in archaeology, classics and medieval studies. In her first semester, she took an upper-level seminar that's required for medieval studies majors.

Before embarking on her undergraduate career, Morris independently studied classical antiquity and the political, social and cultural history of the European monarchies during the medieval era and the early modern period, in addition to classical and medieval literature. Having taken five years of Latin before college, she still continues to study Latin in addition to ancient Greek.

"I suppose I've always been fascinated by, among other things, the interpersonal dramas of the medieval era, as well as intrigued by the evolution of the institutions of the monarchy and the church in addition to the development of the feudal system," said Morris, who grew up in the Washington, DC area.

Morris demonstrates a facility with languages – in addition to English, Latin and ancient Greek, she communicates through American Sign Language and uses an ASL interpreter to communicate her ideas in class discussions and presentations.

Born to deaf parents and deaf since birth, she considers American Sign Language to be her first language. Having been a full-time mainstreamed student in public schools since kindergarten, she said her parents were more concerned about ensuring that she receive a better education than they did in schools for the deaf during the 1960s and '70s than in "normalizing" her. They supported her abilities and passions, such as studying ancient languages and history.

Morris receives interpreting services on Grounds through UVA's Student Disability Access Center, which has a deaf and hard-of-hearing services coordinator, Laurie Shaffer. Shaffer is responsible for coordinating interpreting services for students, faculty, staff and visitors, and fulfills requests through contacting UVA-approved interpreting vendors, since UVA does not have staff interpreters.

Assistant Professor Ahmed al-Rahim, who directs the medieval studies program, leads the upper-level course Morris took last semester. A specialist in medieval Islamic civilization, he said she stands out as one of the best students he's ever had, no matter what age or stage of learning.

"Ms. Morris actively and with great insight participated, through her sign-language interpreters, in the 'Colloquium in Medieval Studies,' a seminar showcasing the scope and scholarly depth of the faculty members of the Program in Medieval Studies," al-Rahim said. "Her grasp of French literature and language was, for a first-year student, truly impressive – culminating in a brilliant paper."

"One great thing about medieval studies here at UVA is that it's interdisciplinary and quite flexible," said Morris, who added that she loves her courses.

Important in working with interpreters who attend classes with her, Morris said, is making sure they understand how she communicates, so they can represent her ideas to her professors and peers accurately and effectively – "and I sign fast," she said, chuckling.

She works with several different sign-language interpreters, prepping them on the subjects she's taking, such as giving them her English translations of Latin and Greek texts for in-class translations as well as transcripts of her oral presentations, and meeting with them between classes to review the material.

"The interpreters are just mediums through which my perceptions, sentiments and the like may be expressed in such a way that is reflective of my sensibility," she said. "They merely facilitate communication – communication assuredly doesn't begin with them. However, I have to develop strong working relationships with them by interacting with them often, both inside and outside of class, so they may get accustomed to my own particular mode of self-expression."

Morris said she'd like to see more hearing people approach her and other deaf people not as people with a disability, but as individuals first and foremost. She asserts that "disability" is too general of a term, sounding like a description of a homogeneous group, which it is not. "The term 'disability' is very much a mental and social construct," Morris said.

"Since the overwhelming majority of deaf children have hearing parents, I feel extremely privileged to have deaf parents, because they didn't oppress me by pathologizing my deafness, by treating it as something to be rectified," Morris said. "After all, that deafness automatically makes someone inherently inferior is an extremely ancient misconception."

Through them, I was born into the deaf community, and came to feel affirmed in my identity as a culturally deaf person."

Diversity is important to recognize in the deaf community because not everyone is the same. "A common misconception is that deaf people are homogeneous and should be treated in a similar manner, and I think this is due to the tendency of people to automatically relegate people who are perceived to be different to the realm of the 'other.' In truth, the deaf community is extremely heterogeneous, with different backgrounds, interests, experiences, communication modalities, goals," Morris said. "Each deaf individual has his own idea of what exactly the deaf community, deaf culture and deafhood constitutes. The deaf experience is far from being a monolithic entity and continues to defy all arbitrary definition."

Neither is the deaf community separate from the hearing community. "Using such terms as 'hearing world' and 'deaf world' would be merely creating a false dichotomy," Morris said. "It implicitly and erroneously assumes that deaf people are necessarily segregated from hearing people by virtue of their deafness. In reality, we all inhabit the same world, ideally as friends and allies."



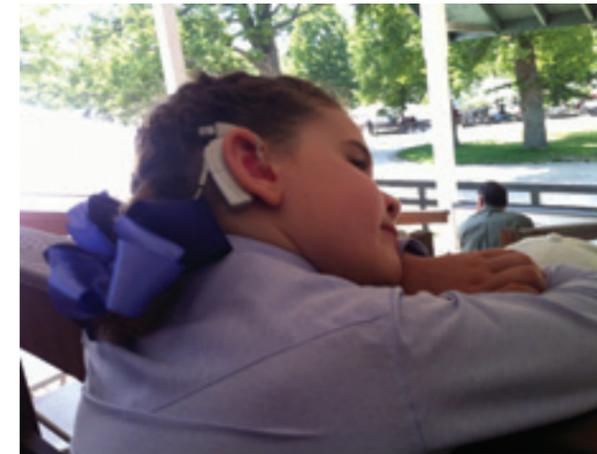
Bromley, Anne E. (2016, April 05). Student Spotlight: From Ancient Greek to ASL, Morris Has a Way With Words. UVAToday. Retrieved from www.news.virginia.edu

Hearing Technology: Types of Hearing Devices



Hearing Aids

Hearing aids make sounds louder. They can be worn by people of any age, including infants. Babies with hearing loss may understand sounds better using hearing aids. This may give them the chance to learn speech skills at a young age. There are many styles of hearing aids. They can help many types of hearing losses. A young child is usually fitted with behind-the-ear style hearing aids because they are better suited to growing ears.



Cochlear Implants

Cochlear implants may help many children with severe to profound hearing loss – even very young children. It gives that child a way to hear when a hearing aid is not enough.

Unlike a hearing aid, cochlear implants do not make sounds louder. A cochlear implant sends sound signals directly to the auditory nerve. It provides access to sounds.

A cochlear implant has two main parts – the parts that are placed inside the ear during surgery, and the parts that are worn outside the ear after surgery. The parts outside the ear send sounds to the parts inside the ear.



Bone-Anchored Hearing Devices

This type of hearing aid can be considered when a child has either a conductive, mixed or unilateral hearing loss and is specifically suitable for children who cannot otherwise wear 'in the ear' or 'behind the ear' hearing aids.

Many people who are deaf or hard of hearing have some hearing. The amount of hearing a deaf or hard of hearing person has is called **residual hearing**. Technology does not cure hearing loss, but may help a child with hearing loss to make the most of their residual hearing. For those parents who choose to have their child use technology, there are many options.

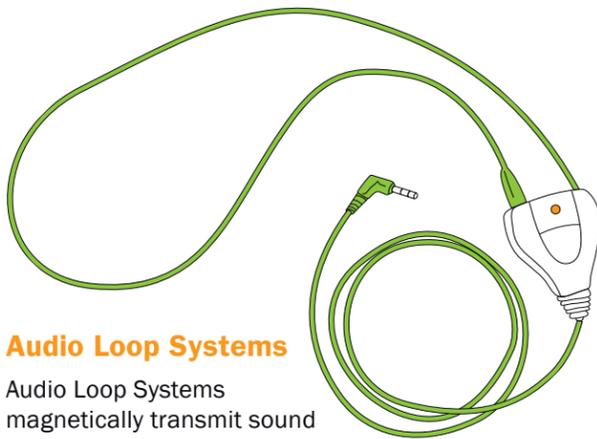


Assistive Technology



FM System

A Frequency Modulation (FM) system is an assistive device that helps people with hearing loss hear clearly in background noise. Like a radio station, FM systems send sound from a speaker's microphone to a listener who is wearing a receiver. An FM system can be used with hearing aids or cochlear implants, via an added component or through wireless Bluetooth technology.



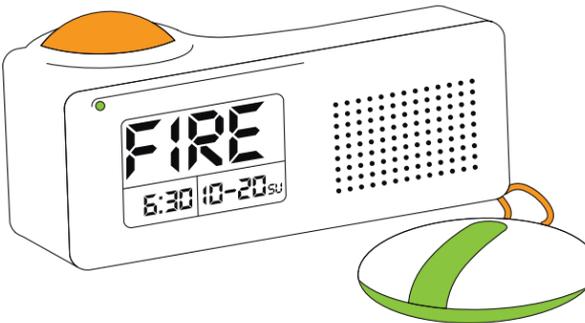
Audio Loop Systems

Audio Loop Systems magnetically transmit sound to hearing aids and cochlear implants with telecoils (t-coils).



Captioning

Many television programs, videos, and DVDs are captioned. Television sets made after 1993 are made to show the captioning. You don't have to buy anything special (just use the menu on remote to turn captions on). Captions show the conversation spoken in soundtrack of a program on the bottom of the television screen.



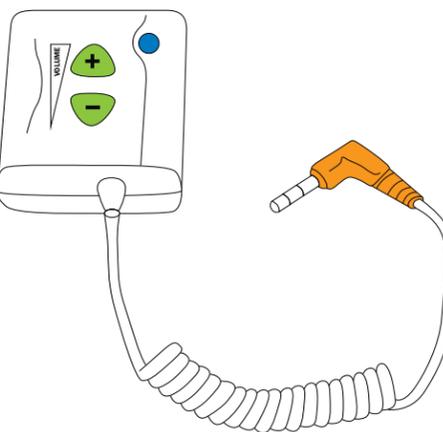
Flashing, Vibrating Alarms

Don't worry about oversleeping! The Alarm Clock can wake you up by LED lights, bed shaker with sound or by an audible alarm that increases in sound volume.



Text Messaging

For some individuals, voice calling is pretty much useless, but text messaging offers them the communication they need.



Cell Phone Amplifiers

Easily connects between a mobile phone and a headset to provide mobile communications for those with a mild-to-moderate hearing loss.

Keys to Access



The Described & Captioned Media Program:

Whether your child is focusing on developing listening and spoken language skills or uses sign language to communicate, it is never too early to expose your child to written words which captioning provides! The DCMF is funded by the U.S. Department of Education and provides a free-loan media program (CD-ROM, DVD, video streaming). It is a valuable resource for language/sign language learning and for educational materials on a variety of topics. Families of children who are deaf or hard of hearing are eligible for a FREE lending account with DCMF which works like Netflix. DVDs are sent via US mail and will have a postage paid sticker to return them. There is NO COST for the user. Many DCMF materials may be directly streamed to a computer. The website is: www.dcmp.org.



Reading the Way to Success

Jennifer Kingsley

As a parent of a child with hearing loss, the best advice I can give is to teach your child from a young age to love to read. My son had profound hearing loss at birth and as soon as he could sit I held him on my lap and showed him pictures in books. As he got older, I turned the closed captioning on every device I could. He grew to love reading and is a straight A student in high school because what he cannot hear he reads.

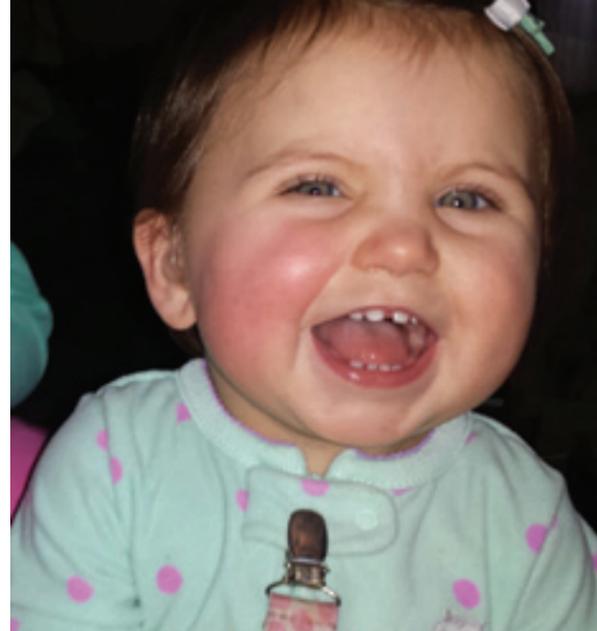
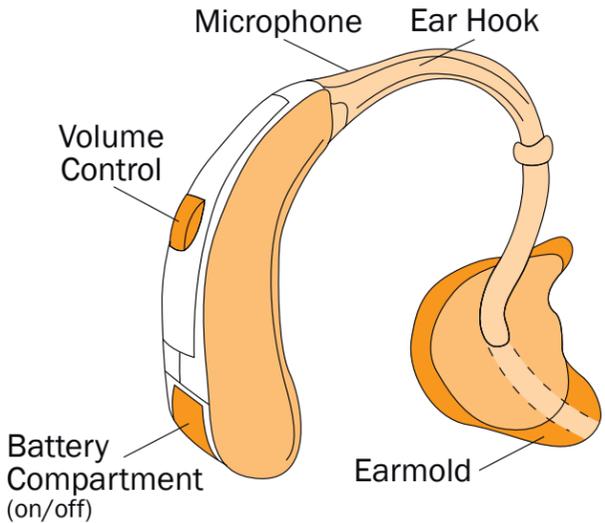
Tyler likes to share that he is NOT disabled! He makes sure that his friends and teachers understand that he can do anything any other 14-year-old boy can do.

How Hearing Aids Work

All hearing aids, regardless of style, are made with the same basic parts. In the behind-the-ear (BTE) hearing aid, shown on the right, you can see the microphone, tone/ear hook, volume control, and battery compartment. To turn power on or off – open or close the battery component door.

The microphone picks up sounds from the environment and sends it to an amplifier that makes the signal louder. The hearing aid will amplify some pitches of the incoming sound more than others depending upon your child’s hearing loss. Your audiologist will program the hearing aid to make the amplified sound appropriate for your child’s hearing.

After the sound is amplified, it is routed through the hearing aid tone hook to an earmold which is custom-made for each child. The tone hook is a small plastic piece that hooks over and behind the child’s outer ear (pinna). The earmold holds the hearing aid in the child’s ear and directs sound from the hearing aid into the ear canal. Earmolds are made from soft materials after an impression is taken of your child’s ear. They are made individually for each child and fit snugly in the ear canal. As a baby grows, earmolds need to be replaced on a regular basis.



The Virginia Hearing Aid Loan Bank

The Virginia Hearing Aid Loan Bank is open to children from birth through age 18 whose hearing loss is confirmed by an audiologist. The bank lends hearing aids and FM systems for up to six months. The initial loan period can be extended for an additional three months in certain circumstances.

To qualify, families must be residents of Virginia and be in the process of securing permanent hearing aids through insurance or other means. Parents can apply for hearing aids and FM systems by completing an application form. The child’s audiologist must complete a portion of the application.

Getting Started: Information & Applications

Below are important documents you need to apply for the Hearing Aid Loan Bank.

To get started with the application process, navigate to the Virginia Early Hearing Detection and Intervention Program’s homepage: www.vdh.virginia.gov/livewell/programs/ehdi/nextsteps.html

Here you will find links to important information and applications for the Virginia Hearing Aid Loan Bank available for download.

Be sure to read and review these important documents:

- VHALB Policies and Procedures
- Hearing Aid Loan Bank Application
- Loan Bank Extension Application
- Hearing Aid Loan Bank Application (Spanish version)

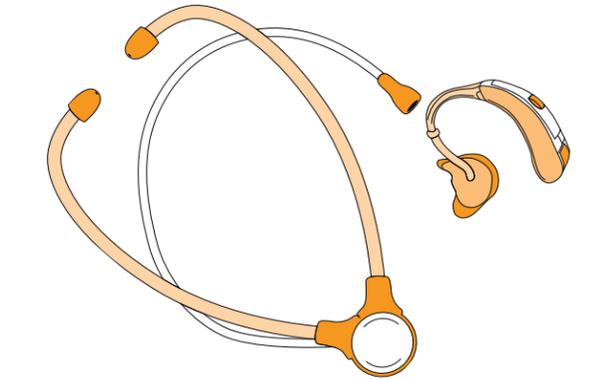
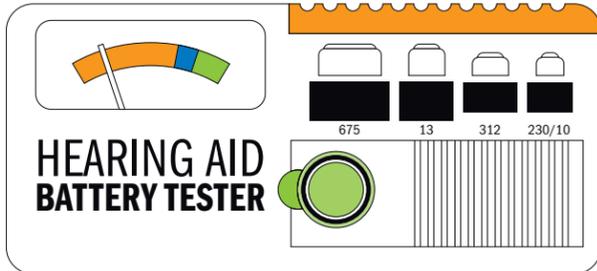


For More Information

Lisa Powley
 Blue Ridge Care Connection for Children
 434 924-0222 | 1 866 596-9367
 lkp2V@virginia.edu



Hearing Aid Listening Check: Instructions



1. Check Hearing Aids Often
Hearing aids are checked daily or more often if the child has been in moist conditions or does not appear to be responding to sound as expected. Children should learn to use the hearing aids during all waking hours. Look at the hearing aids and earmolds and look for any broken or cracked areas; blockage of openings; build-up of moisture in tubing; and corrosion in battery compartment. At night, open the battery door so that the battery doesn't make contact, which will keep it from draining all night and increase battery life.

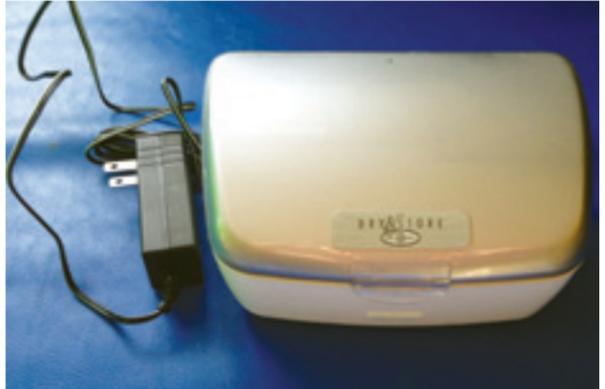
2. Test Battery
Batteries only last 1 – 2 weeks when used daily. Because a young child may not be able to tell you when the battery has died you need to check the batteries in the tester provided. Place the battery in the correct size hole, press the red bar and the needle should move into the green or "good" area. If not, replace the battery. Battery life begins when the tape is removed from the top of the battery surface. **BATTERIES ARE POISONOUS! KEEP ALL BATTERIES OUT OF REACH OF CHILDREN, DOGS, AND PETS.**

3. Listen To the Hearing Aid
You should soon become skilled at knowing what your child's hearing aid should sound like. Report changes you perceive to your audiologist who can test the aid further. Make sure the aid is "off" and the volume is turned down, if possible. Place the tip of the earmold in the tan colored cup at the end of the stethoset and put the eartips in or near your ears. Turn on the aid and turn up the volume until comfortable. Listen for any loud background hiss or scratchy sounds as you move the volume wheel. Jiggle the hearing aid and listen for any cutting in and out of sound. Say the sounds "oo," "aw," "ee," "sh," "s," and "m" and listen to how clear the sounds are. Each sound represents a different pitch range in hearing, so clarity of the sounds is critical! If the hearing aid is too loud for you to listen to safely, you can purchase a filter to attach to the stethoset.

When Do I Change the Battery?

- **If the Hearing Aid Does Not Amplify Sound When It Is Turned On...**
Make sure the hearing aid is in the "on" position. If it is in the "on" position, and there is no sound, change the battery.
- **If the Hearing Aid Does Not Sound As Loud As I Expect It To...**
Change the battery. Check for blockage around the earmold tubing.
- **If the Hearing Aid Does Not Amplify the Sound Consistently or the Sound Cuts In and Out...**
Change the battery. Check the battery compartment to see if there is corrosion.
- **If the Quality of Sound Does Not Sound Clear, or There Is Static Sound and Distortion...**
Change the battery. Check the battery compartment for corrosion.

More about hearing aids:
www.nidcd.nih.gov/health/hearing-aids



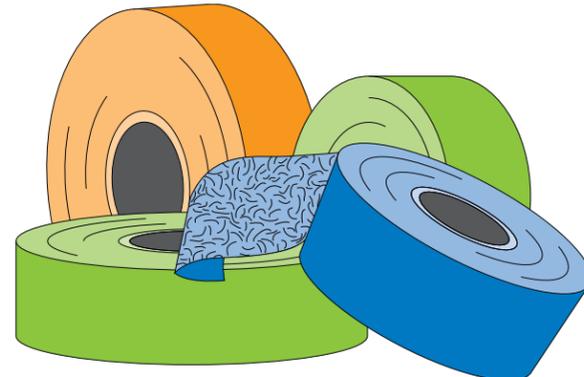
4. Put the Hearing Aid On the Child
Turn it on and to the correct volume setting. Say the sounds "oo," "aw," "ee," "sh," "s," and "m" and watch your child for a response from 6 – 12 inches and again from 6 feet or at your child's maximum listening distance. Encourage your child to repeat these sounds and participate in hearing aid checks. You can use this quick hearing aid check method for years! If you know the earmold is in the correct position and you hear any feedback (whistling) when the child chews, vocalizes, or moves around, the earmold may be too small for your child's growing ear. Immediately make an appointment with the audiologist for a new earmold impression to be made. Babies grow fast and so do their ears! A hearing aid that is whistling is not providing your child with the amount of amplification he or she needs to perceive and attend as well as needed to speech and sounds in the environment.

5. Care & Cleaning
Hearing aids that are not water proof or water resistant should not get wet or be in moist places. If you see drops of water in the earmold tubing, remove the earmold and use the blower to dry out the tube. If the earmold is dirty, clean it with the wax loop tool or remove it and let it soak in warm dishwater. Earwax will eventually discolor the earmold. Do not boil or use harsh cleaners on earmolds. Let them dry overnight before attaching to hearing aids. In moist climates, hearing aids should be kept in the Dri-Aid kit nightly. Remove the battery, open the battery door, seal tightly in the Dri-Aid jar. One drop of moisture in the earmold tube or hearing aid can prevent a child from receiving amplified sound.

6. Ask Questions
Tell your audiologist or Early Intervention services provider if your child does not seem to be hearing as well as usual or the hearing aid(s) do not produce the same quality of sound as usual.



Keeping the Hearing Aid On



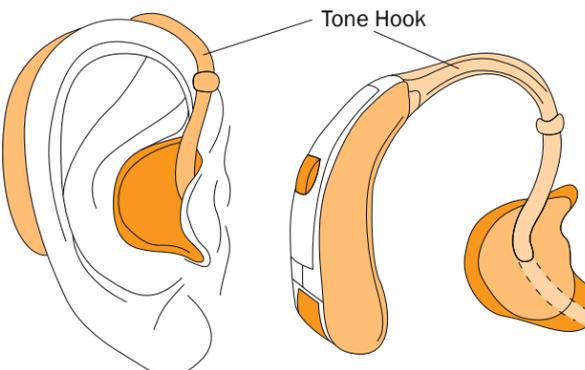
Toupee Tape
 Double-sided tape which secures the hearing aid to the skin. Tape will need to be changed often. Make sure the child is not allergic or irritated by the adhesive.



Ear Gear
 Spandex sleeves that cover hearing aids.



Huggie Aids™
 Circle types of tubing that fit around the outer ear.



Tone Hooks
 Pediatric tone hooks are a better fit than the adult sized ones.



Hearing Aid Clips
 These clips can attach onto the hearing aids and clip onto the child's clothing.



Hanna Andersson Pilot Caps
 A snug soft cap or bonnet may help the child from pulling hearing aids off.

Hearing Aid Use: Special Cases

According to Christine Eubanks, PhD, Audiologist at VCU CI Center:

Why Wear Hearing Aids Before Cochlear Implants?
 Delays in auditory development can be minimized by providing access to sound as soon as a hearing loss is identified. The audiologist has to have good estimates of hearing thresholds to know how much hearing aid amplification to provide for speech and other sounds. Usually, several tests are needed to gather enough information to be confident of hearing status and fit the aids appropriately.

Why Wear a Hearing Aid on a Unilateral Hearing Loss?
 Listening with both ears provides awareness of the direction of sound, ability to hear in noise, and a sense of strong, clear sound. Hearing loss in one ear, called unilateral loss, changes the listening experience. Also, sometimes individuals develop hearing loss in the other ear, so a child needs regular testing to check for any changes in hearing. A child with unilateral hearing loss can still learn to listen and use spoken language relying on normal hearing in one ear. His response may seem similar to a child with typical hearing but there are differences and potential challenges.



It's Going to Get Better!

Nicholas, Charliana & Asher

The initial shock of learning that something is "wrong" with your child is devastating. You have little-to-no information while the immediate and long-range implications race through your mind. But, I promise - it will get better. You are your child's greatest advocate. Utilize the resources you have in your very hands. You will gain confidence when armed with information and a plan.

At first, we didn't believe Asher's diagnosis. And initially everyone, medical technicians and family members alike, brushed it aside as a fluke - "It's probably just amniotic fluid in his ear" or "He responds to our voices, I'm sure he's fine." Still, we innocently continued to follow the process, until we came to the inevitable conclusion that this was not a technical error. Our newborn son has mild-to-moderate hearing loss.

Once acceptance set in, we were able to start "the work". For a 2-month-old, the challenge is to find an audiologist who is willing and able to treat someone so young. People will tell you that you have plenty of time - no matter what age your child is, act immediately; do not delay.

Luckily, with a lot of ground work, we found an amazing and patient doctor who understands the unique needs of an infant with hearing loss. We were able to get Asher fitted with hearing aids by the time he was 4 1/2 months old. The difference was instantaneous! Immediately, the tone and quality of his voice changed.

Now, we are so incredibly grateful for the mandatory newborn testing. Without it, Asher likely would not have been diagnosed for several years when a myriad of other problems would have arisen. Today, he is a very healthy and happy baby and we are able to give him the resources he needs to thrive!

Watch It: Hearing Loss & Cochlear Implants

See video about Cochlear Implants:

Chloe's Story

www.boystownpediatrics.org/KnowledgeCenter/Videos/Pages/CochlearImplantsChloesStory.aspx



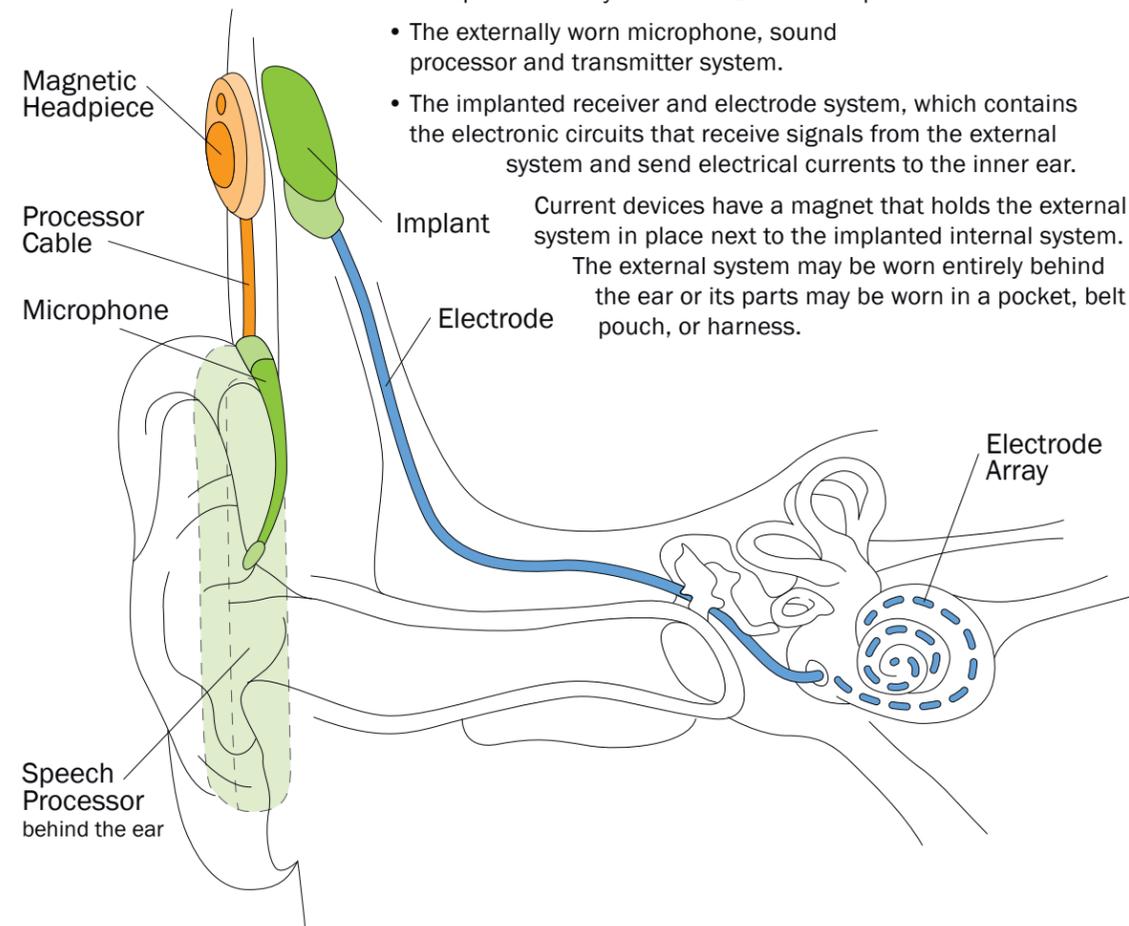
Wearing Cochlear Implants

What is a Cochlear Implant?

A cochlear implant is an implanted electronic hearing device, designed to produce useful hearing sensations to a person with severe to profound hearing loss by electrically stimulating nerves inside the inner ear.

These implants usually consist of 2 main components:

- The externally worn microphone, sound processor and transmitter system.
- The implanted receiver and electrode system, which contains the electronic circuits that receive signals from the external system and send electrical currents to the inner ear.



How Does a Cochlear Implant Work?

A cochlear implant system consists of the external component worn on the outer ear or discreetly on the body, and the implant which delivers sound to the hearing nerve. Cochlear implants bypass the damaged part of the ear:

- Sound is captured by a microphone on the sound processor.
- The sound processor converts the captured sound into detailed digital information.
- A microphone on the sound processor captures sound and sends them to the speech processor. The power comes from the battery in the processor.
- The magnetic headpiece transmits the digital signals to the internal implant under the skin.
- The implant turns the received digital information into electrical information that travels down the electrode array to the auditory nerve.
- The auditory nerve sends impulses to the brain, where they are interpreted as sound.

Who is Eligible for a Cochlear Implant?

In general, adults who have severe to profound hearing loss in both ears and have benefited only minimally from hearing aids may qualify as candidates for cochlear implantation. Children as young as 12 months of age with profound hearing loss in both ears and who demonstrate little progress in the development of auditory skills may also be considered candidates for some implant devices. After cochlear implantation, the child will need to undergo intense speech and language therapy in order to achieve the best possible outcome from the device. It is important to acknowledge that not everyone is a candidate for cochlear implants. Those children who are good candidate should work closely with professionals such as their ENT doctors and audiologists to discuss realistic individual expectations and outcomes.

How Much Do Cochlear Implants Cost?

The average cost for one cochlear implant, including pre-implant evaluations, the implant devices, surgery and post-surgical fitting, can range from \$40,000 to \$100,000 depending on individual need and the center at which the surgery is performed. Many individuals are now being fitted with two devices.

Do Insurance Companies Cover Implants?

Because cochlear implants are recognized as standard treatment for severe-to-profound nerve deafness, most insurance companies cover them. In 2004, Medicare, Medicaid, the Veteran's Administration and other public health care plans cover cochlear implants. In 2004, more than 90 percent of all commercial health plans cover cochlear implants. Cochlear implant centers usually take the responsibility of obtaining prior authorization from the appropriate insurance company before proceeding with surgery.

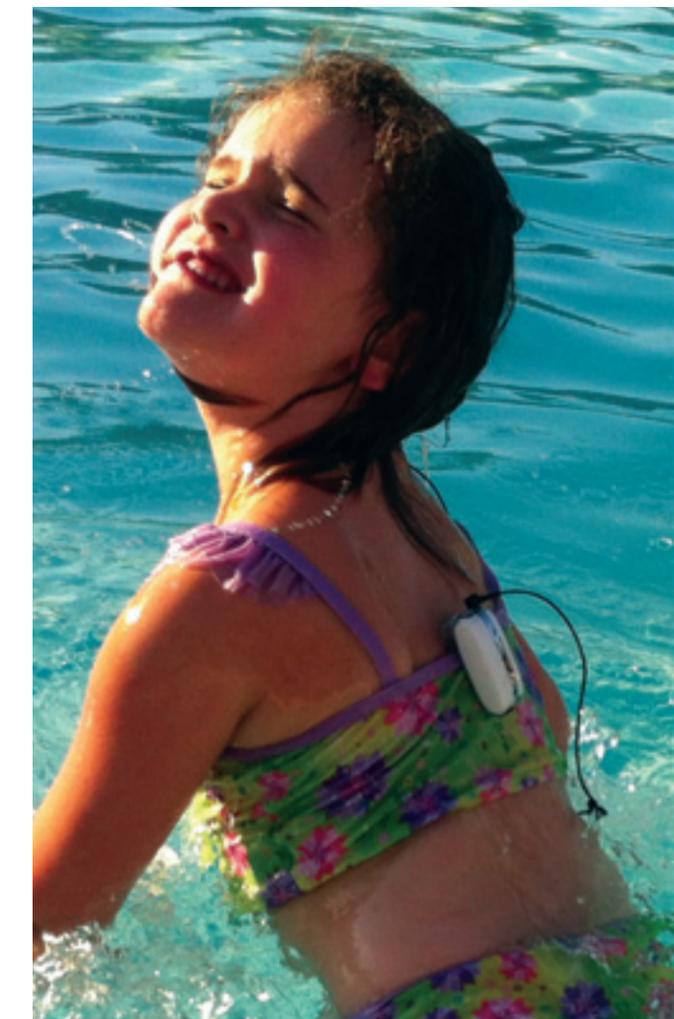
My health plan has denied coverage for a cochlear implant. How can I appeal?

First, determine specifically why the cochlear implant was denied. Make sure you have the denial in writing. If you do not receive a written denial, ask for one. An appeal is most effective when structured in response to the specific reason for denial of coverage. If a specific denial reason is not provided, contact the plan and ask for clarification. Second, contact your cochlear implant center and advocacy groups and ask for help.

Sources: www.asha.org and www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/ImplantsandProsthetics/Cochlearimplants/ucm062866.htm

When Marielle was asked about her thoughts on wearing her cochlear implant in the water she responded: "It was hard at first because the coil was always falling off. It makes me feel like a normal kid."

— Marielle, Age 5

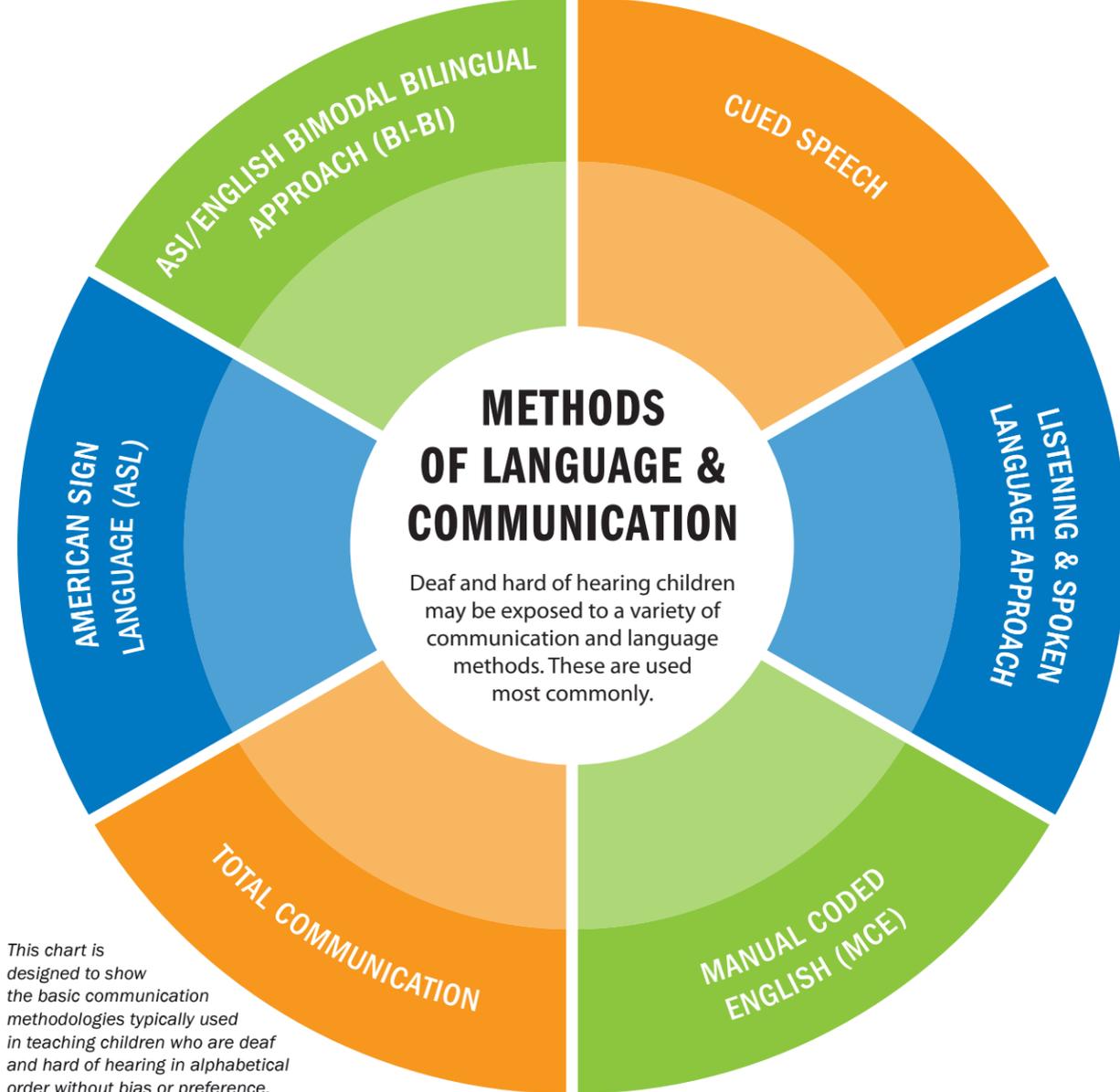


Differences Between Language & Communication

	Communication - The Method	Language - The Tool
Definition	Communication is the exchange of information between two or more people by speech, sign, signal or behavior.	Language is an abstract system of symbols and meanings governed by grammatical rules.
Interaction	Communication involves interaction between two or more people.	Language can be used by just one person such as in reading or writing or talking to oneself.
Communication	Communication is the way people express and receive information through body language, facial expressions, tone or loudness of voice, gestures, signs, reading, writing, etc.	Language may be English, Spanish, Urdu, American Sign Language, British Sign Language, etc. Every cultural or ethnic community has one or more language with which they identify and which is used within their community.



Communication & Language



This chart is designed to show the basic communication methodologies typically used in teaching children who are deaf and hard of hearing in alphabetical order without bias or preference.



Deafness Does Not Define You

Jennifer Morris

This is 4-year-old Gracen who has bi-lateral Cochlear Implants as a result of Pendred Syndrome. When I looked to find a picture of Gracen to share I originally started looking for a photo that showed off his “ears”, but that became a very difficult task as they really are not that noticeable in pictures, unless it is a side shot. Then I had to stop and say to myself, is it the “ears” that are important or is it more important to show my little man happy and doing something that he loves! When we found out about Gracen’s hearing loss, I became worried and scared that my child would not be able to do what a “typical” child can do. I can tell you with my full heart that this is not the case.

Communicating in Different Ways

People who are deaf or hard of hearing communicate in a variety of ways. Families with young children who are deaf or hard of hearing need to consider the communication modalities and language opportunities that best fit the needs of their child. Developing language requires commitment and hard work on the part of both the child and family. Parents and other family members are encouraged to:

- Research as much as possible about all the communication modalities and language opportunities. Families make their best decisions when they are familiar with the communication modalities and language opportunities.
- Recognize that no decision is permanent and that one can revisit the communication approach at any time based upon your child's needs and/or new developments.
- Communication choices are not exclusive. You do not need to pick one or the other. Many children who are deaf and hard of hearing use both speaking and signing. People who are deaf or hard of hearing often use an array of modalities including listening, watching, signing and talking.
- Learn as much as possible about your child's strengths both auditorily and visually and use communication strategies that take advantage of your child's abilities to acquire language. Each child is unique.
- Monitor your child's language and communication progress and make adjustments in the communication modalities, technologies, and strategies as needed.
- Remember that the goal for your child is to acquire language that is comparable to the language level of their hearing peers.



American Sign Language (ASL)

American Sign Language (ASL) is the language used by many deaf people to communicate with each other and with hearing people who know the language. ASL is a visual/gestural language that has no vocal component. 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. ASL is a complete, grammatically complex language.

Deaf Culture, Deaf Mentor

Deaf Culture provides deaf people with access to historically created solutions for effective living in a world populated mostly by people who hear.

Deaf mentors, role models and advisors are adults who are deaf or hard of hearing who have received training to provide families with an understanding of Deaf culture, what it means to be deaf and opportunities to interact with the Deaf community in a safe and comfortable way. Deaf mentors, role models and advisors also help families learn how to communicate with deaf people and, most importantly, how to communicate with their own child.

By watching adults who are Deaf/Hard of Hearing working directly with children, parents can see how readily and easily the child acquire language and communication skills visually; this in turn encourages them to use more visual strategies with their child, enhancing that early communication dance so critical for the child's early development.

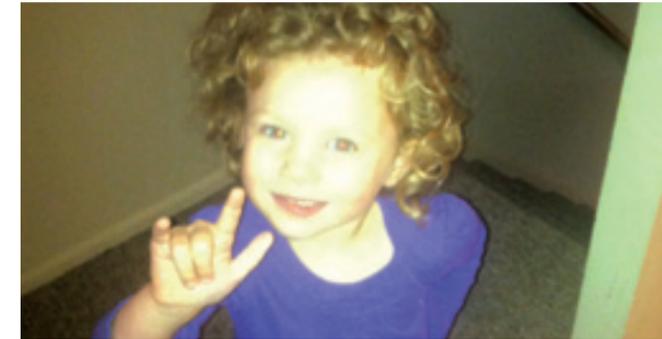
Sources: Holcomb, 2013. *Introduction to American Deaf Culture* - Oxford University Press.
Pittman, P., Sass-Lehrer, M. & Abrams, S. (2016). *Sign language, sign systems, and other visual modalities*. In M.P. Moeller, D.J. Ertmer, & C. Stoel-Gammon (Eds.). *Promoting Language & Literacy in Children Who Are Deaf or Hard of Hearing* (pp. 149-179). Baltimore, MD: Brookes Publishing Co.

Are Sign Languages Real Languages?



American Sign Language (ASL) is a real language. It possesses the identical levels of language organization found in all spoken languages, specifically, the Phonological (or sub-lexical), Morphological, Semantic, and Syntactic levels of language organization.

— Dr. Laura Ann Pettito
Brain & Language Lab for Neuroimaging



Setting Language in Motion

Family Supports and Early Intervention for Babies Who are Deaf or Hard of Hearing

Setting Language in Motion: Family Supports and Early Intervention for Babies who are Deaf or Hard of Hearing is a free, web-based resource developed as a collaborative effort between the Laurent Clerc National Deaf Education Center and the Deaf and Hard of Hearing Program of Boston Children's Hospital. It is based on the Building Blocks of Intervention webinar series created by the Deaf and Hard of Hearing Program at Children's.

The goal of Setting Language in Motion is to foster an understanding of the importance of early language acquisition that supports robust linguistic competence and conceptual development in children who are deaf or hard of hearing. Early intervention providers, deaf educators, early childhood specialists and allied professionals, parents, and other caregivers will benefit from this resource.

To learn more, visit www.gallaudet.edu/clerc-center/sites/setting-language-in-motion.html.

What is Deaf Plus?

Deaf Plus refers to children or persons who have a hearing loss in addition to other conditions that affect them medically, physically, emotionally, educationally or socially.

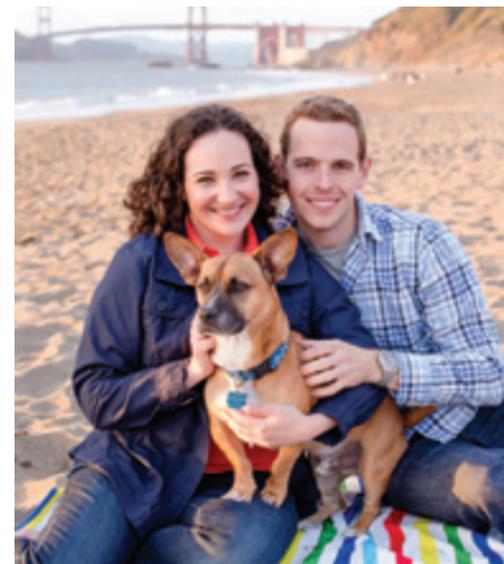
Among children with hearing loss, about 50 percent also have other significant medical, physical, emotional, or educational socially concerns.



Using Technology to Climb to the Top

Doug Hyde

Doug Hyde is a successful software engineer in Silicon Valley who relies on a hearing aid, a cochlear implant, and oral communication. Growing up, he was an avid hockey player and earned a Gold Medal for the US in the Deaflympics in 2007. Now he and his hearing wife enjoy hiking, snowboarding, home brewing beer, and playing with their rescue dog-child. His advice to parents is to shoot for the moon; optimism and hard work go really well together, especially with the right technology.



Never Lose Hope

Whitney Breeding

In 2008, I became a mother with the birth of my son, Henry. My world of being a first time mother was soon shaken when my little newborn was found to have bilateral hearing loss.

Henry received his first set of hearing aids when he was just 5 months old. He adapted well and we recognized early on that he was a truly special child. Henry began reading at the early age of 3.

Today Henry is gifted, well-mannered 8-year-old. He enjoys baseball, science, and history. He has excelled in academics, as a constant member of the honor roll and recipient of numerous awards.



Something I learned early on as we were traveling to various hospitals seeking answers was to never lose HOPE. It's hard to remember that when faced and worried about your children. But as we traveled from doctors' offices, we would see other children much worse off than our Henry and I knew immediately we could face any problem. I know how blessed I am to be the mother to Henry and his 4-year-old brother Oliver. His father and I are so thankful for each day with them.

ASL/English Bimodal Bilingual Approach (Bi-Bi)

In ASL/English Bilingual Approach is One that Supports the Acquisition, Development, and Use of American Sign Language and English

- Bilingual means the development and use of two or more languages.
- American Sign Language (ASL) is a visual language; English is a spoken and written language.
- The goal of this approach is for each child to develop linguistic proficiency in ASL and English in the written and spoken form (as is appropriate for the individual child).
- Spoken English is a component of this approach. It is valued, encouraged, and incorporated and is specific to an individual child's characteristics and goals.
- What Does Bimodal Mean in an ASL/English Bimodal Bilingual Approach?
- Bimodal refers to the development and use of language in more than one modality. ASL is a signed language and English is a spoken language (spoken and signed are the "modes" to which "bimodal" refers).
- Children must acquire language before they can learn to read and write English. Building language foundations in ASL and spoken English is critical to literacy development.
- Bimodal development will be unique to each child. All children who can see have access to ASL; however, access to spoken English will be specific to each child's hearing levels and use of technology.

Research Supporting the Use of an ASL/English Bimodal Bilingual Approach

- The brain has the capacity to acquire both a visual and a spoken language without detriment to either language.
- Sign language does not prevent the development of spoken language.
- Early accessible language (spoken or signed) is the best predictor of positive spoken language outcomes.
- Primarily focusing on spoken language (when a child does not have full access to spoken language) and not providing visual language may result in developmental delays.



Everything You Always Wanted to Know ASL/English Bimodal Bilingual Education

www.gallaudet.edu/Documents/Clerc/Handout%20for%20ASL-English%20Bimodal%20Bilingual%20Webinar%20Part%20I%20and%20II.pdf

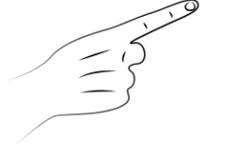
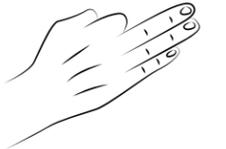
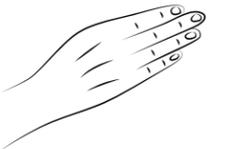
Cued Speech

Cued Speech is a visual communication system — mouth movements of speech combine with “cues” to make all the sounds (phonemes) of spoken language look different. When cueing English, eight handshapes distinguish consonant phonemes and four locations near the mouth distinguish vowel phonemes. A handshape and a location together cue a syllable.



www.cuedspeech.co.uk

Cued Speech: What It Looks Like

Vowels		Consonants	
Mouth  /ee, ur/ leisure	Side  consonant alone	1  /d, p, zh/ deep treasure	5  /m, t, f/ & vowel alone my taffy
Chin  /aw, ue, e/ tall blue tent	Throat  /oo, a, i/ look at it	2  /TH, k, v, z/ the caves	6  /w, sh, l/ wet shell
Side Forward  /oe, ah/ boat dock	Side Down  /uh/ sun	3  /s, h, r/ sea horse	7  /th, j, g/ thin jogger
Chin to Throat  /oi, ay/ moist snails	Side to Throat  /ie, ou/ light house	4  /wh, b, n/ white bone	8  /y, ng, ch/ young child

Listening & Spoken Language Approach



Previously referred to as the Auditory-Verbal or Oral Approach, Listening and Spoken Language approach (LSL) is a collaborative, family-centered educational approach that promotes the development of a child’s listening abilities and spoken language. With the goal of helping the child learn to listen and talk, parents and family members play a key role from the first stages of identification. LSL integrates the most current learning and academic strategies, along with the most sophisticated hearing technologies, (e.g. hearing aids, cochlear implants, assistive listening devices) to assure the best possible access to sound.

The ability of children who are deaf and hard of hearing to learn to use their hearing is based on evidence that indicates that when the ear(s) is adequately provided with quality sound, that sound travels through the auditory system to hearing centers of the brain where that sound is processed. Early intervention programming that focuses on a strong listening and spoken language outcome should employ a speech-language pathologist and/or teacher of the deaf/hard of hearing who has had significant training in listening and spoken language principles.

LSL trained professionals guide and coach families to help their children develop spoken language through listening, and may help them advocate for their children's inclusion in general education settings.

Source: Ellis, Nachman, Parker (3rd Edition, 2016) *Early Intervention Services in Pediatric Resource Guide to Infant & Childhood Hearing Loss*, (Section 6. 10); Berkely, CA: Center for Early Intervention on Deafness.

Manually Coded English

This method uses a visual (signed) form of the English language. English is visually represented (coded) through manual signs. There are a number of systems for manually coding English and each one has its own rules and variations. Most of the systems use American Sign Language signs as a base and also use English word order. Since manually coded English follows English language rules, it is easier for hearing parents to learn and use with their children.

MCE systems are almost always used with simultaneous communication or sign supported speech – speaking and signing at the same time.

Simultaneous Communication (or Sign-Supported Speech)

In the simultaneous method (also known as Sim-Com), parents are encouraged to both speak and sign when they communicate with their children. Some form of manually coded English is used for the sign system.

The visual communication approaches that have been designed, created, or developed with the intent of making grammatical aspects of English visible on the hands were also designed to be used simultaneously with spoken English.

Pidgin Signed English (PSE) or Conceptually Accurate Signed English (CASE) utilizes the concept signs of ASL and spoken words of English. Signing Exact English (SEE) incorporates spoken English with a consistent visual form of English, signing exact words and endings.



For us, cochlear implants gave our son access to sound and in turn with hours and hours of therapy the ability to take in sound and speak. Once implanted, we worked and continue to work with a team of amazing professionals. With lots of hard work not only by our son but also by our entire family, Indy's expressive and receptive language as well as his vocabulary is at or above his hearing peers. As parents, it is very difficult at times to make choices for our children. For Indy, we knew we had to be true to who our family is, not someone else's. And we continue to follow that path with all of our energy, heart and spirit. He is not in this alone. We are with him every step of the way. It is important to realize that this journey is not a sprint. It is a marathon, a marathon where, at times, we are all exhausted and, at other times, we are beyond blessed at his ability to express himself in his own words.

Success Comes in Many Forms

Shannon & Indy Mueller

When my son, Indy, was first diagnosed with profound hearing loss, my husband and I were truly devastated. We were scared of the unknown. Four years later, we are truly grateful because we have gone on and continue to be apart of this incredible journey. We have met amazing people. We have fought some difficult fights. We have heard and shared stories all of which are different from our own. Success comes in many forms.

Examples of Markers in MCE systems:



regular past verbs: -ed
talked, wanted, learned

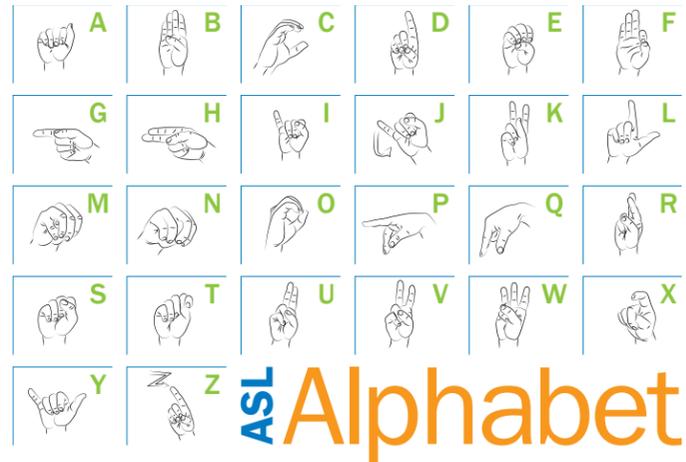


verb form: -ing
climbing, playing, running

Sources: Pittman, P., Sass-Lehrer, M. & Abrams, S. (2016). Sign language, sign systems, and other visual modalities. In M.P. Moeller, D.J. Ertmer, & C. Stoel-Gammon (Eds.). Promoting Language & Literacy in Children Who Are Deaf or Hearing Of Hearing (pp. 149-179). Baltimore, MD: Brookes Publishing Co. www.mecdhh.org/uploads/Pdfs/Webinars/MCE.pdf

Total Communication

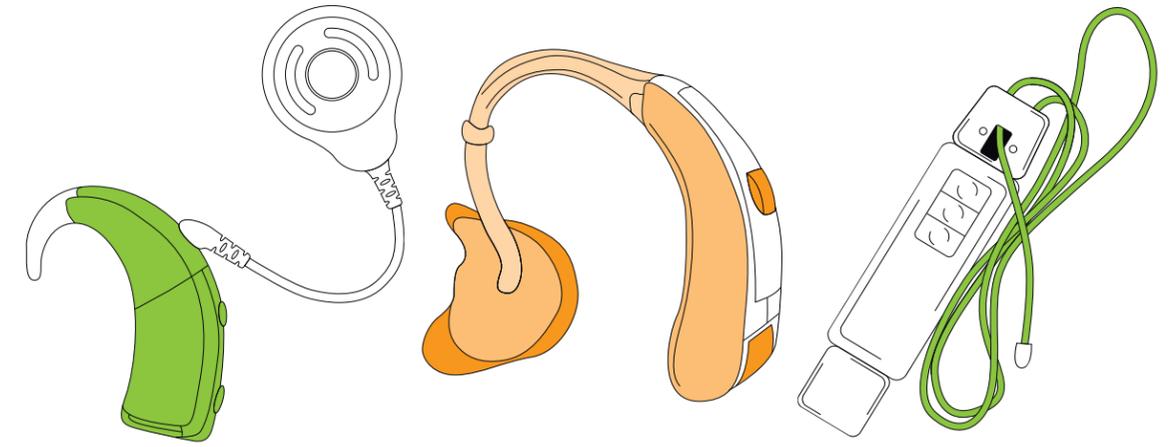
Total Communication is a philosophy that uses a combination of methods to teach a child, and may include ASL, as well as contact varieties of sign, along with finger spelling, Cued Speech, listening, amplification, spoken language, facial expression, or body language.



ASL Fingerspelling



Speech Reading



Amplifications Cochlear Implants, Hearing Aids, FM Systems



ASL

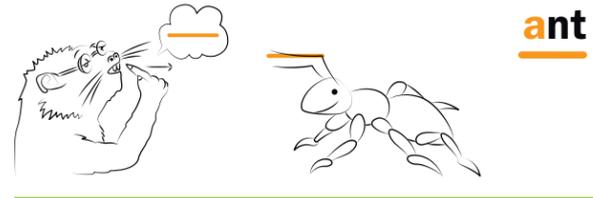
Tool for Reading Literacy

See The Sound - Visual Phonics© is a system of 46 unique hand cues and written symbols developed and in use since 1982 that represent the sounds of English. Included are the sounds commonly referred to as vowels, consonants, diphthongs and digraphs. STS-VP is a visual and kinesthetic tool which has been found useful in helping children develop their early sound-letter reading skills and may help children learn to pronounce speech sounds.

To the right are five examples of STS-VP hand cues. Complete information about See The Sound-Visual Phonics© can be found at www.seethesound.org. In Virginia, STS-VP training is available through the Technical Assistance Center for Children who are Deaf/Hard of Hearing at www.partnership.vcu.edu/programs/education/ed-ttac-deaf.html/.



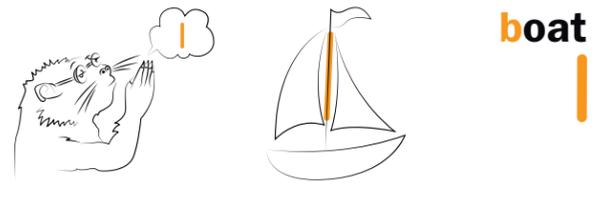
See the Sound – Visual Phonics©



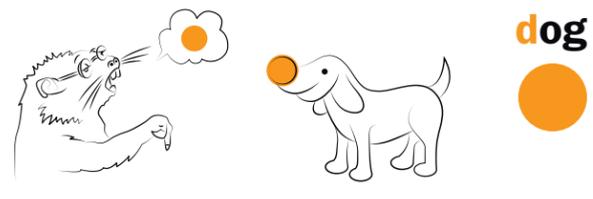
ant



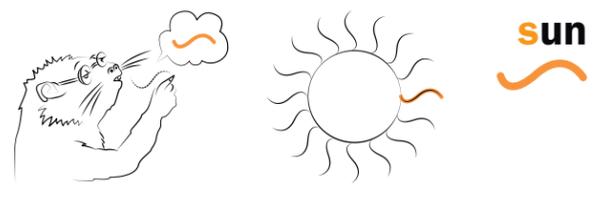
eagle



boat



dog



sun

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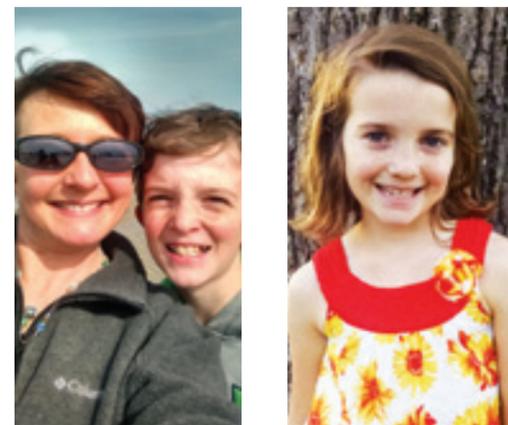
Quite a Ham

Rachel Hockman

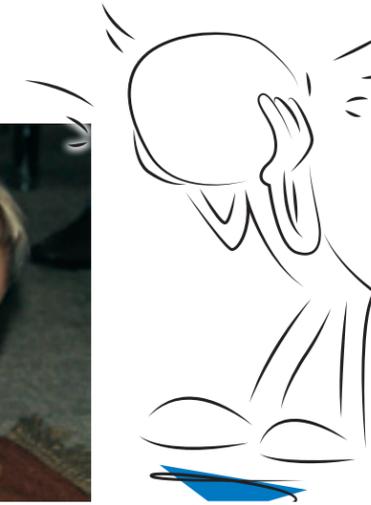
My middle son will be 12 in 3 weeks. He was diagnosed bilaterally deaf at 18 months and received his first implant at 2½ and his other side at 7. He is a social butterfly and an incredible athlete. He's charming and quite a ham.

We do family fun night and normally do karaoke. His favorite song is by Brandon Heath "Give Me Your Eyes". My son sings it every time. He's not the best singer, but he gave it his all and he has great showmanship. He never gives up hope. Sixth grade is really hard for him this year but he's a determined little guy. His younger sister is also bilaterally implanted. Thank Brandon for making a beautiful song.

Source: Facebook, January 2016. Video no longer available.



Helping Your Child to Access Language & Communication



1 | Get Attention

Such as using eye contact.



2 | Be on the Same Level with the Child

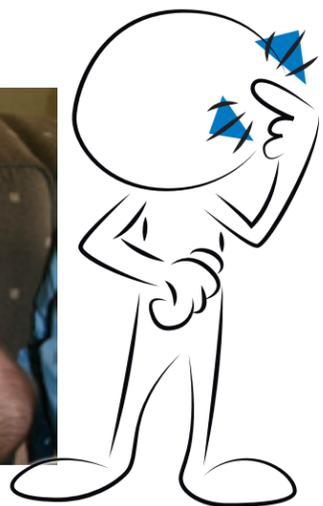


3 | Lighting on Speaker's Face



4 | Recognize Child Making Communication Attempts

And expand on them!



5 | Use Touch



7 | Set High Language Expectation



6 | Respond Immediately to Meet the Child's Needs



8 | Repeat & Rephrase When Necessary

“Do You Want a Drink?” REPHRASE: “Would You Like Some Water?”



Man to Be First Deaf Medical School Graduate in West Virginia

Mark Leekoff

Friday was a big day for medical school students across the country. It was National Match Day which means thousands of aspiring doctors found out where they'll start their residency training.

Almost 27,000 medical school students nationwide found out where they'll doing their residency training once they graduate in May. Approximately 34,000 medical school seniors applied for a residency match this year which means not everyone was selected. Fortunately for students at the WVU School of Medicine all 78 seniors ended up with a match.

“I'm really excited. It's good to see, mostly for my classmates, where everybody matches,” said WVU medical student Ali Hajiran.

There's one student in particular who has overcome a major obstacle in his life to pursue his passion of treating the sick and injured. His name is Mark Leekoff and he's from Virginia. When he graduates from WVU School of Medicine he will become the first medical school graduate in West Virginia who is deaf.

“I've overcome a lot in my life and this is the culmination of all the experiences,” said Leekoff.

WVU School of Medicine administrators are saying Leekoff's story is inspiring.

Dr. Hannah Hazard is the WVU School of Medicine Assistant Dean. She said, “Anybody that overcomes what would traditionally be considered an adversity towards our profession such as this is always an incredible story.”

When he was three years old Leekoff was one of the first kids in the United States to receive a cochlear implant. Before he received the implant he was completely deaf. To this day he claims he remembers the first time he was able to hear the world around him.

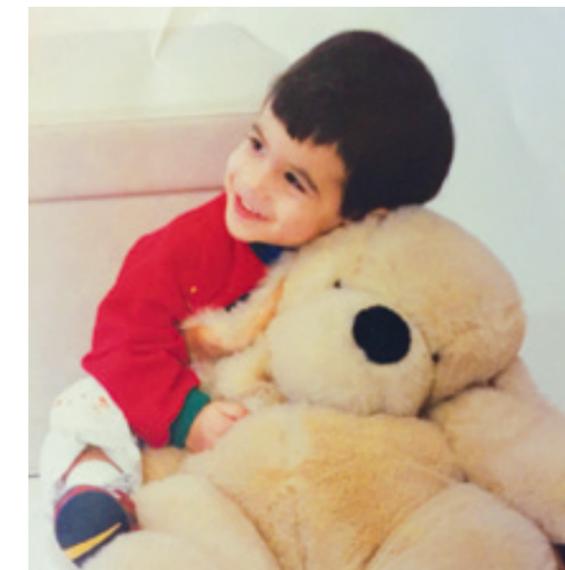
“I thought I was hearing static from the TV. It was just really loud and I remember yelling at my mom to take it off,” said Leekoff.

Debbie Leekoff was all smiles on Friday as her son prepared to find out where his residency would take place. While reflecting on the first time her son was able to hear she said, “It was music to my ears if you will because he heard. This is the most amazing day ever. Mark has exceeded every expectation.”

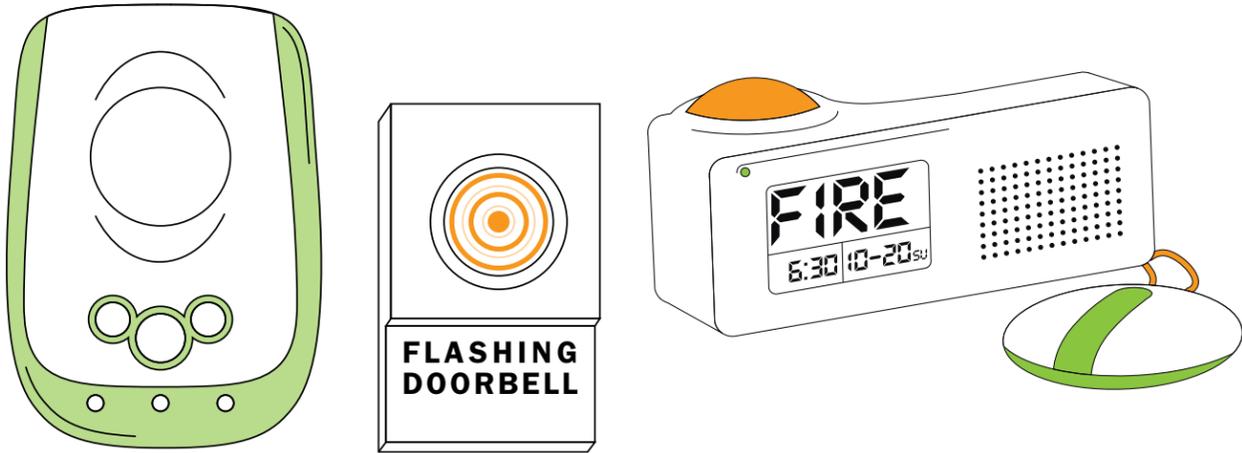
Leekoff and his family members are saying it hasn't been easy. Years of speech therapy and performing surgery with limited hearing have all presented challenges, but Leekoff's condition hasn't prevented him from achieving his dream. His condition is also the primary reason why he wanted to become a doctor in the first place.

As he continues his journey Leekoff hopes other people will hear his story and learn to never give up. He said, “When I see patients, especially in neurology when people have debilitating diseases, I am the hope for them.”

Leekoff will be heading to the University of Maryland for Neurology.



Advancing Technology for Independence

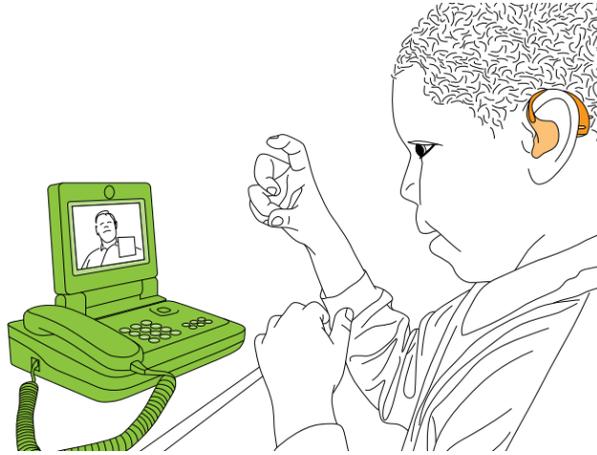


Doorbell Flashers

Alarm Systems: Wake-Up Calls, Fire/Smoke



Relaying on Cell Phones



Signing on the Videophone/Computer/Cell



Fun Apps for Learning Speech & Language

<p>ABC Alphabet Phonics FREE iPhone, iPad & Android</p> <p>Children learn the alphabet, phonics and the sound and first words associated with each letter.</p>	<p>ASL Dictionary 5,200 Signs iPhone, iPad & Android</p> <p>Translate English into ASL, plus the entire numerical system, common phrases, symbols and more.</p>	<p>The Baobab iPad & Android</p> <p>Original story about a curious little girl who embarks on an adventure. Comes with 170 vocabulary words.</p>	<p>The Little Airplane That Could iPad</p> <p>A creative adaption of the classic, this story is packed with vocabulary words and ASL personifications.</p>	<p>Sound Match iPhone & iPad</p> <p>A twist of the classic memory game. Remember the sounds and put them in pairs.</p>
<p>ABC Alphabet Phonics iPhone & iPad</p> <p>Educational game that helps your child learn the ABCs by sight, sound, and touch. Ideal for ages 0 to 6.</p>	<p>ASL Kids iPhone, iPad & Android</p> <p>Learn ASL by watching other kids. Common signs from the ASL dictionary and baby sign language.</p>	<p>The Blue Lobster iPad & Android</p> <p>From the same team who created The Baobab. Designed for young and emerging readers, ages 3 & up.</p>	<p>Peekaboo HD Farm iPhone, iPad & Android</p> <p>Designed for toddlers to play and learn at the same time. Contains visual, verbal and auditory cues.</p>	<p>Tozzle iPhone & iPad</p> <p>Colorful puzzles built for children ages 2 and up. Improves shape recognition and motor activity.</p>
<p>abc Pocket Phonics iPhone & iPad</p> <p>Teaches children letter sounds, first words and handwriting. Kids learn 9x faster compared to a classroom.</p>	<p>AudioPairs iPhone & iPad</p> <p>A classic card game / pair-matching concentration game where you match sounds instead of pictures.</p>	<p>The Boy Who Cried Wolf iPad & Android</p> <p>Rich ASL storytelling and emotive artwork reflecting the deep themes of the timeless fable.</p>	<p>Smarty Pants School get smarty. iPad</p> <p>Introduces, teaches, and reinforces pre-reading and reading skills games to children.</p>	<p>VL2 Storybook Creator Mac Desktop</p> <p>A storybook template for Xcode - create your own bilingual apps without writing a line of code.</p>
<p>Articulation Station iPhone & iPad</p> <p>Learn to pronounce and practice consonantal sounds at the word, phrase, sentence and story levels.</p>	<p>Baby Sign & Sing iPhone, iPad & Android</p> <p>Babies/toddlers watch animated characters sign nursery rhymes using keyword signs from ASL.</p>	<p>Eli Explorer iPhone & iPad</p> <p>Kids discover 100 words/phrases and learn meaning and correct pronunciation in 10 languages.</p>	<p>The Solar System iPhone & iPad</p> <p>Travel through our solar system in ASL & English! Packed with glossary definitions and facts on planets.</p>	<p>WH Questions iPhone & iPad</p> <p>Helps children learn how to correctly ask and answer who-what-when-where-why questions.</p>

Sources: www.itunes.apple.com, www.vl2storybookapps.com

What are Early Intervention Services?

A child and family may receive Early Intervention supports and services if the child is up to three years old and has certain levels of developmental delay, differences in development and/or a diagnosed condition.

A child is also eligible who has a diagnosed condition that will very likely cause a developmental delay. This includes hearing loss of any type.

If you need contact information for Early Intervention services, call the Infant & Toddler Connection of Virginia at 1 800 234-1448.

Source: www.infantva.org



John Tracy Clinic



What is an Individualized Family Service Plan (IFSP)?

The Individualized Family Service Plan (IFSP) is the legal document that guides the implementation of early intervention supports and services for each child and family. All children who receive Part C early intervention supports and services will have an IFSP.

The purpose of the IFSP development process is to develop an IFSP that: communicates the family's priorities and hopes for their child; describes the child's functional development; outlines the outcomes that the family would like to see for their child and the goals that will be used to monitor progress towards outcomes; and describes the supports and services that will help families achieve their goals for their children. Early intervention supports and services begin with a well-built IFSP.

Infant & Toddler Connection of Virginia
Individualized Family Service Plan (IFSP)
Local System Name Here



I. Child and Family Information

Child's Name: _____ Date of Birth: _____

Gender: M F Child's County or City of Residence: _____

IFSP Date: _____ Initial Annual # _____ Date 6 mo. Review Due: _____

Date(s) Review(s) Completed: _____

Family's Primary Language and/or Mode of Communication: _____ Child's (if different) _____

Medicaid Number (optional): _____

Parent's and/or Other Family Member's Name, Address, Phone And Other Contacts: _____

Service Coordinator's Name, Agency, Address, Phone, Email and Fax Numbers : _____

Early Intervention services are provided to eligible children and their families in compliance with Part C of the federal *Individuals with Disabilities Education Act*.

Getting Ready for an IFSP Meeting



Family Members & Caregivers

Many children who receive early intervention services are cared for by a multitude of various people including family members, but also day care providers, preschool teachers, nannies, au pairs, etc. It is important to involve all family members when working with the Early Intervention team. This will help increase the chances for successful communication with the baby.



Talk about Child's Strengths: What He or She Can Do?

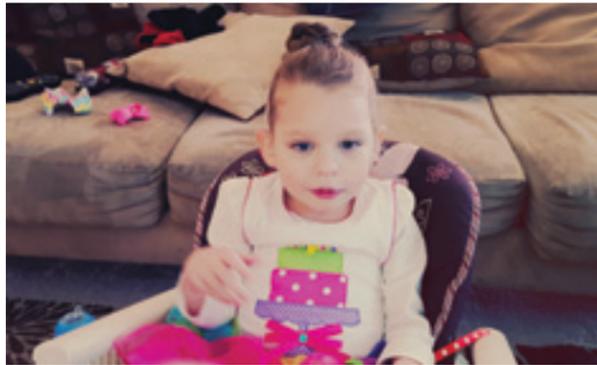
When meeting with the Early Intervention professional, discuss activities that you enjoy with your child. Talk about positive things that you like to do together with your child. For example, share information about how you can see the difference at meal times when the baby is wearing hearing aids versus when the baby is not wearing hearing aids.



Virginia Department of Health

Activities to Work On | Outcomes Such As Communication

Think about some things/activities that are important to you that your child can participate in with you and your family. How do you hope that your child will communicate? What are some of the concerns that you have about your child?



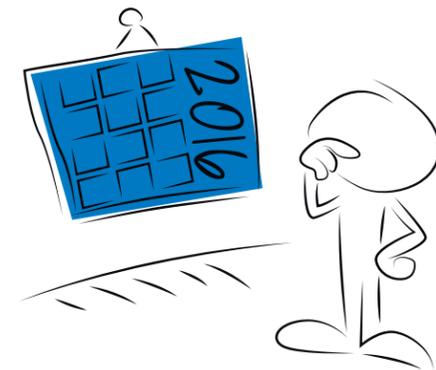
Natural Environment

Natural Environment can be defined as anywhere the child is, including home, of course, but also anywhere they would be interacting or alongside their typically developing peers (like day cares, playgrounds, restaurants, and so forth.) Have conversations with the Early Intervention team about your everyday experiences with your baby. Talk about some of the things you can do when feeding the baby. What are things you can do for an active toddler who you feel can't hear you?



Other Services

The Early Intervention team should work with the child holistically. Other resources that families should ask about could include community resources such as play groups, music classes, story times, gym/movement classes where their child could have opportunities to interact with their typical peers. Also parents should question about parent support groups.



Arranging Dates & Duration

The strategies that the Early Intervention team shares with the family should be included into the routine the child and family follows. Take this opportunity to talk about the child's schedule and how that fits in with speech lessons. How much time should be allocated for speech lessons – if they are part of the plan?



Keeping In Touch With Your Service Coordinator

Your Service Coordinator is your primary point of contact who will coordinate all of your services, provide information on resources in the community and facilitate your transition when it is time to leave the Early Intervention program. Keeping your Service Coordinator abreast of your child's progress through periodic phone calls and face-to-face visits is essential.

Growing Up: Transition from Baby to Preschool to Elementary

When its time for your child to exit the Early Intervention program, your service coordinator will facilitate the transition process by helping you explore your options for the ongoing services you child may need. Your service coordinator will assist you in developing plan as part of your child's IFSP. If your child moves on to services through the public school system, your child's teacher and/or case manager will assist with the transition to the next step.

For most students who are deaf or hard of hearing, in order to be successful, the required accommodations and modifications may include visibility of the teacher's face for speechreading, visual materials, and clarification of notes and concepts, lecture notes, or activities. Communication needs may include a sign language interpreter, oral interpreter, or the teacher simply facing the student when talking, and providing copies of notes. An excellent resource is the Guidelines for Working with Students Who Are Deaf or Hard of Hearing in Virginia Public Schools (2012), which offers common use of terminology, instructional strategies, and different educational methodologies.



Transition to Middle School

The transition from elementary school to middle school should include services that were in elementary school but at the middle school level. There will be different accommodations, as the student gets older. The child may benefit from having a note taker in the classroom, or the child may use an FM system. The IEP plan may specify to the give the child more time when taking a test.

Individual Education Program

Individualized Education Program (IEP)

Children who are deaf or hard of hearing who get special education services have Individualized Education Programs (IEPs). An IEP is a written document that explain exactly what services the student will get, and it is a very important part of a student who is deaf or hard of hearing.

Please browse through the questions below for an introduction to IEPs. You will find links to other websites that contain helpful information on IEPs at the bottom.

- What is an IEP?
- Who writes the IEP?
- When and how is the IEP developed?
- What is in an IEP?
- What happens during the IEP meeting?

What is an IEP?

An Individualized Education Program (IEP) is a written document that describes what services the school will provide for a child who needs special education services. IEPs explain how students who are deaf and hard of hearing will be involved in three areas of school life:

- The general education curriculum
- Extracurricular activities
- Non-academic activities

Who Writes the IEP?

The Individuals with Disabilities Education Act (IDEA), our nation’s special education law, requires that the following people are part of the IEP team:

- the parents of the child;
- not less than one regular education teacher of the child (if the child is, or may be, participating in the regular education environment);
- not less than one special education teacher of the child, or where appropriate, not less than one special education provider of the child;
- a representative of the public agency who is qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of children with disabilities; is knowledgeable about the general education curriculum; and is knowledgeable about the availability of resources of the public agency;
- an individual who can interpret the instructional implications of evaluation results;
- other individuals who have knowledge or special expertise regarding the child, including related services personnel as appropriate (invited at the discretion of the parent or the agency).

For deaf and hard of hearing children, professionals such as audiologists and speech-language pathologists are likely to be part of the IEP team. If the child has additional disabilities, other professionals may be involved. For example, an orientation and mobility specialist may attend the IEP meeting of a student with deaf-blindness, and a physical therapist may attend the IEP meeting of a student who is deaf and has physical limitations.

Preparing For IEP Meetings

A helpful tool to aid in preparing for an IEP meeting is the *It’s About Me: Step by Step Guide for Creating My IEP* produced by the Center for Family Involvement. For more information, visit the resources section at: www.centerforfamilyinvolvement.vcu.edu



John Tracy Clinic

When and How is an IEP Developed?

Within 30 calendar days after a deaf or hard of hearing child is found to need special education services, an IEP must be developed. Every year after that, the IEP team meets to review the child’s progress towards the learning goals and set new learning goals.

What is Included in an IEP?

IDEA requires that an IEP contains the following information:

- Present levels of academic achievement and functional performance, including how the child’s disability affects his or her involvement and progress in the general education curriculum;
- Measurable annual goals including academic and functional goals;
- How the child’s progress toward meeting the annual goals will be measured, and when periodic progress reports will be provided;
- The special education and related services that the child will receive;



Program modifications or supports for school personnel that will be provided so the child can make progress toward annual goals, make progress in the general curriculum, participate in extra-curricular and non-academic activities, and be educated and participate with other children with disabilities and non-disabled children;

- An explanation of the extent, if any, to which the child will not participate with non-disabled children in the regular class and in extracurricular and nonacademic activities;
- Individual accommodations that the student needs to measure the academic achievement and functional performance when the student takes State and division-wide assessments;
- Note: If the IEP team determines that the child must take an alternate assessment instead of a standard state or division-wide assessment of student achievement, the IEP must include a statement of why the child cannot participate in the regular assessment and why the particular alternate assessment selected is appropriate for the child; and the projected date for the beginning of the services and modifications, and the anticipated frequency, location, and duration of those services and modifications.

Parents, I encourage you to stay involved and become strong advocates for your child by developing future plans for his/her IEP, not just for her/his present plans.

— Holly Morris, *Guide, Guide By Your Side*



Glossary of Terms

Americans with Disabilities Act (ADA): signed into law in 1990, this is a “civil rights act” for persons with disabilities. The ADA requires public services and buildings to make reasonable accommodations to allow access to persons with disabilities.

Assistive listening system: a system that improves hearing in noisy situations by positioning the microphone closer to the sound source. It also improves the quality of the amplified speech or music. Includes FM systems, infrared systems, and induction loop systems.

Audiogram: a graphic representation of hearing loss, showing the level of hearing (in decibels of loudness – dB) for the different frequencies of sound (250 – 8000 Hz).

Audiologist: a professional who specializes in prevention, identification, and assessment of hearing loss and provides assistance to make the best use of remaining hearing. Audiologists assist with the selection, fitting, and purchase of hearing aids.

Auditory nerve: located in the inner ear, it is the cranial nerve (VIII) that carries nerve impulses from the inner ear to the brain. It provides specific information about the pitch (frequency) and loudness (intensity) of sound.

Auditory training: listening to environmental sounds, music, and speech to practice recognizing and understanding what has been heard.

Aural rehabilitation: specialized training for children with hearing impairment to help them learn verbal communication skills through speech reading and auditory training.

Bilateral hearing loss: hearing loss in both ears.

Binaural: having or related to two ears; having to do with the perception of sound with both ears.

Central auditory processing disorder (CAPD): language disorder that involves the perception and processing of information that has been heard. Children with CAPD have problems following spoken instructions and sequencing events and usually show other language-learning problems. The audiologist uses a series of special listening tests to diagnose this type of disorder.

Cochlea: is the auditory portion of the inner ear. It contains the end organ of hearing, which changes sound vibrations to nerve impulses. The impulses are carried to the brain along the VIII nerve, or auditory nerve.

Conductive hearing loss: a loss of sensitivity to sound, resulting from an abnormality or blockage of the outer ear or the middle ear. The most common cause of conductive hearing loss is middle ear infection. Other causes include wax buildup in the ear canal, a perforation, or hole, in the eardrum, or damage to the tiny bones of the middle ear, the ossicles.

Congenital deafness: a profound hearing loss present at, or shortly after, birth.

Deaf: a term used to describe persons who have a hearing loss greater than 70dB. When written with a capital “D,” it may also be used to refer to those who consider themselves part of the Deaf community or culture and choose to communicate using American Sign Language instead of verbal communication.

Deaf culture: the culture of the Deaf, based on sign language and a common heritage.

Decibel (dB): the unit used to measure the loudness of a sound. The higher the dB, the louder the sound will be.

Direct audio input: the capability of connecting a sound source, such as a TV or tape recorder, directly into a hearing aid. Also refers to the connection of an FM auditory trainer directly into a behind-the-ear hearing aid.

Dynamic range: a person with normal hearing will hear very soft sounds, prefer medium sounds, and be able to tolerate very loud sounds. The difference between the softest sounds one can hear and the loudest sound tolerated is called the dynamic range.

Eardrum: also called the tympanic membrane; it separates the outer ear from the middle ear.

Ear mold: a custom-fitted mold, used with a behind-the-ear hearing aid that delivers amplified sounds into the ear.

Educational audiologist: an audiologist with special training and experience to provide services to children in school settings.

Feedback: the shrill whistling sound made when the amplified sound from the hearing aid receiver goes back into the microphone of the hearing aid. It can be caused by an ear mold that does not fit properly or a damaged hearing aid.

Frequency: the measurement for the pitch of a sound. Frequency is expressed in Hz (Hertz) or cps (cycles per second). The more cycles per second, the higher the pitch.

Hard of hearing: the term to describe those with mild to severe hearing loss and most often able to use residual hearing with amplification.

Hearing aid: an electronic device used to amplify sound; includes behind-the-ear, in-the-ear, and canal hearing aids.

Hearing aid evaluation: the process of selecting an appropriate hearing aid. The audiologist will evaluate different types of hearing aids, to determine which is best-suited to the child’s hearing loss.

Hearing loss: loss of hearing ability, from different causes.

Hearing impairment: the term disability category used by the Individuals With Disabilities Education Act (IDEA).

IEP (Individualized Education Program): an individually designed education program for children with disabilities, including children with hearing loss. The IEP addresses the goals and objectives for the child’s education.

IFSP (Individualized Family Services Plan): an individualized plan created for the child and family by a multidisciplinary team that includes the parents. The IFSP includes developmental outcomes, strategies, and early intervention services needed to attain those outcomes.

Mixed hearing loss: a hearing loss that is partially sensori-neural and partially conductive in nature.

Ossicles: the chain of three tiny bones in the middle ear (malleus, incus, stapes).

Otitis media: infection of the middle ear.

Otolaryngologist: a medical doctor who is a specialist in problems of the ear and throat.

Otologist: a medical doctor who is a specialist in problems of the ear.

PE tube: pressure-equalizing tube. A tube that is inserted in the eardrum to provide air to the middle ear, permit drainage, and equalize the pressure between the middle ear and the ear canal.

Play audiometry: a kind of hearing test where the audiologist teaches the child to respond when a sound is heard by doing something. For example, put a peg in a hole or a block in a bucket every time a sound is heard.

Post-lingual deafness: hearing loss occurring after the child has learned speech and language.

Real ear measurement: a measurement of the resonance of the ear canal and the output of a hearing aid while it is in the ear.

Recruitment: the abnormal increase in the loudness of sound as perceived by the listener.

Residual hearing: the amount of measurable, usable hearing which can benefit from amplification.

Sensori-neural loss: a hearing loss caused by damage to the inner ear (cochlea). This type of hearing loss is irreversible.

Speech-language pathologist: a professional who evaluates and provides treatment for speech, language, cognitive-communication, and swallowing problems of children and adults. Speech and language delays are frequently seen in children with hearing impairments.

Speech range: the area where most sounds of human speech occur. See chart on page 13.

Threshold: the softest level at which a sound can be heard 50 percent of the time by the person who is being tested. The term is used for both speech and pure tone testing.

Tinnitus: noise that a person can hear in the ears, such as ringing, buzzing, roaring, or clicking.

Unilateral hearing loss: referring to one ear.

Organizations & Resources

Alexander Graham Bell Association

The world's oldest and largest membership organization promoting the use of spoken language by children and adults with hearing loss.

www.agbell.org

American Cochlear Implant Alliance

ACI Alliance unites the medical community, patients, families, advocates and other professionals to improve the acceptance of and access to cochlear implants for one simple reason: to help enrich people's lives.

www.acialliance.org

American Society for Deaf Children

Organization of parents who are advocates for children who are deaf or hard of hearing.

www.deafchildren.org

American Speech-Language-Hearing Association

Professional and consumer resources. Contains a career FAQ and a glossary of terms.

www.asha.org

Boys Town Center for Hearing Loss in Children

A resource for parents of babies who have just been diagnosed with a hearing loss or for families of any child who is deaf or hard of hearing.

www.boystownhospital.org

Camp Loud and Clear

Summer camp for deaf and hard of hearing children.

www.holidaylake4h.com/camploud.php

Center for Family Involvement

Works with families to increase their skills as advocates, mentors and leaders so that families, children and young adults with disabilities can lead the lives they want.

www.centerforfamilyinvolvement.vcu.edu

Family to Family Network of Virginia

Provides one-to-one emotional, informational and systems navigational support to families of children and youth with developmental disabilities and special health care needs.

Educating Deaf Children

This website was created to serve as a source of factual information for parents, teachers, and others interested in the raising and educating of deaf and hard-of-hearing children. Parents can post a question and receive an answer from a professional qualified to address that topic/concern.

www.rit.edu/ntid/educatingdeafchildren/

Families To Families

Conducts monthly Saturday morning sessions to connect and support families with young children who are d/hh in the Hampton Roads Area.

Contact: Lizzy Allen, lizzyad@msn.com
Melinda Gallagher, mkgallagher2@gmail.com

www.families2families.weebly.com

Free Publications

Hearing Loss Fact Sheet, Decision Guide to Communication Choices, Making a Plan for Your Child and Questions

www.cdc.gov/ncbddd/hearingloss/freematerials.html

“Giving Your Baby a Sound Beginning”

www.infantheating.org/videos/featured/sound-beginning.php

Guidelines for Working with Students Who Are Deaf or Hard of Hearing in Virginia Public Schools

Published by the Virginia Department of Education's and available on their website. This 2012 update reflects current regulations, terminology, demographic and best practice information "to enhance the provision of services to students who are deaf or hard of hearing in order to support their educational goals."

Hands & Voices

Established by parents of Colorado Home Intervention Program supporting all communication options for children who are deaf or hard of hearing.

www.handsandvoices.org

“Hearing Loss In Children: My Story”

www.cdc.gov/ncbddd/hearingloss/stories.html

Infant & Toddler Connection of Virginia

State system for early intervention services. Call 211 or visit www.infantva.org for your local entry point.

Supporting Organizations for Education & Advocacy

www.agbell.org/Supporting_Organizations_for_Education_and_Advocacy/

John Tracy Clinic

Provides parent-centered services for young children. Find program information, events, contacts, and links.

www.jtc.org

Laurent Clerc National Deaf Education Center

At Gallaudet University, working with children who are deaf worldwide.

www.gallaudet.edu/clerc-center.html

“Meet Our Families”

Videos of families and alumni who have participated in John Tracy Clinic's Parent/Infant, Auditory-Verbal Preschool program.

www.jtc.org/ideas-advice/testimonials-videos/

National Association of the Deaf

Provides services and support for individuals who are deaf and their families. Includes local chapter links and articles.

www.nad.org

National Cued Speech Association

Raises awareness of Cued Speech and its applications, provides educational services, assists local affiliate chapters, establishes standards for Cued Speech and certifies Cued Speech instructors and transliterators.

www.cuedspeech.org

The PCA Program of Challenge Discovery Project (Richmond)

Monthly meetings held except June, September, and December during which parents are led in topic discussions as well as engage in sign language lessons while children of all communication modalities enjoy games, activities and socializing.

pcaprogram@gmail.com

PEPNet2 (Postsecondary Education Programs Network)

Online training for students ages 14 and up who are deaf and hard of hearing and preparing to transition out of high school and those serving college students who are deaf or hard of hearing (but great for those serving all ages).

www.pepnet.org

Special Education: Laws and Regulations

www.doe.virginia.gov/special_ed/regulations/

What Is an IFSP?

www.agbell.org/Document.aspx?id=1416



More Organizations & Resources



www.library.cedarmill.org

Speech-Language-Hearing Association of Virginia

An association of over 700 audiologists and speech-language pathologists.

www.shav.org

Success for Kids with Hearing Loss

This comprehensive website offers resources in several areas including self-advocacy materials that are appropriate for students of all ages. The “Guide to Self-Advocacy” developmentally presents skills from PreK through adulthood. In addition, a FREE 2012 e-book, Self-Advocacy for Students who are Deaf or Hard of Hearing by Kristina English, is available on this site.

successforkidswithhearingloss.com/resources-for-professionals/

Training and Technical Assistance Center for Children Who Are Deaf or Hard of Hearing, Partnership for People with Disabilities, VCU

Funded by VDOE to provide training and technical assistance to educators in the area of hearing impairment and deafness.

www.partnership.vcu.edu/programs/education/ed-ttac-deaf.html

T/TAC Online

An online community linking people and resources to help children and youth with disabilities.

www.ttaonline.org

SOL Enhanced Scope and Sequence Plus+

Lesson guides featuring model differentiated lessons for SOLs.

www.ttac.gmu.edu/regional-activities/ess

Virginia Board of Audiology and Speech-Language Pathology

Oversees the laws and regulations that govern the practice of speech language pathologists and audiologists in Virginia.

www.dhp.virginia.gov/aud

Virginia Department for the Deaf and Hard of Hearing (VDDHH)

Works to reduce the communication barriers between persons who are deaf or hard of hearing and their families and the professionals who serve them.

www.vddhh.org

Virginia Department of Education (VDOE)

Oversees educational services for all students in Virginia’s public and state operated schools.

www.doe.virginia.gov

Virginia Department for Aging and Rehabilitative Services

Providing quality programs and services that empower individuals with disabilities to maximize their employment, independence and full inclusion into society.

www.vadars.org

Virginia Department of Health, Early Hearing Detection and Intervention

The goal of the Virginia Early Hearing Detection and Intervention program is to identify congenital hearing loss in children before three months of age and to assure enrollment in appropriate early intervention services before six months of age.

www.vdh.virginia.gov/livewell/programs/ehdi/

The Virginia Hearing Journey

This family networking group in Mechanicsville, VA invites families with children of all communication modalities to monthly gatherings which offer parent information from subject matter experts, a focused sibling session and fun activities for all children who are d/hh. Meetings are held at Shady Grove United Methodist Church in Mechanicsville.

www.VAHearingJourney.org

www.facebook.com/VaHearingJourney

The Virginia Network of Consultants for Professionals Working with Children Who are Deaf or Hard of Hearing (VNOC)

Provides consultant services directly to Virginia school divisions and state operated programs to support and enhance educational services for children who are d/hh and can provide training for school/agency personnel. VNOC requests are initiated and submitted by a school division or agency. See a video explanation of VNOC at:

www.vcu.edu/partnership/VNOC.

Virginia Registry of Interpreters for the Deaf

The Virginia affiliate chapter of Registry of Interpreters for the Deaf.

www.vrid.org

VA Relay

Enables people who are deaf, hard of hearing, deafblind, or speech disabled to communicate by TTY or another assistive telephone device with anyone who uses a standard phone.

www.varelay.org

Virginia School for the Deaf and Blind (VSDB)

A state residential school created by an act of the General Assembly of the Commonwealth of Virginia, March 31, 1838 for the purpose of educating the deaf and the blind children of the state.

The school utilizes some of the latest and most advanced audio-visual equipment and disability tailored computer applications in its classrooms to provide its students with the best education.

www.vfdb.k12.va.us

Virginia Hearing Aid Loan Bank

For more information about this program, call Lisa Powley at the Blue Ridge Care Connection for Children at 434 924-0222 or 1 866 596-9367.

Navigate to the Virginia Early Hearing Detection & Intervention Program homepage:

www.vdh.virginia.gov/livewell/programs/ehdi/home.html

Keep In Touch!

Parents are encouraged to share their current email addresses with the Technical Assistance Center for Children who are D/HH at the Partnership for People with Disabilities at VCU to receive email communiqués on resources and events specific to supporting the education of children who are D/HH. Send contact information to:

Ann Hughes

Coordinator, TA/DHH Center
awhughes@vcu.edu

Kristen Stahr

Program Support Specialist, TA/DHH Center
khstahr@vcu.edu



The Partnership for People with Disabilities is a university center for excellence in developmental disabilities at Virginia Commonwealth University. VCU is an equal opportunity/affirmative action university providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability.

Center for Family Involvement

Partnership for People with Disabilities
Virginia Commonwealth University
1 877 567-1122 | 800 828-1120 (TDD)
www.centerforfamilyinvolvement.vcu.edu



**CENTER FOR
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Partnership for People
with Disabilities
Linking people. Changing lives.



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