# Los Angeles Parent, Family & Professional Roadmap for Audiology Services

### **ACKNOWLEDGEMENTS**





USC Caruso Department of Otolaryngology Head and Neck Surgery

USC Caruso Family Center for Childhood Communication

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### **ACKNOWLEDGEMENTS**

The goal of this project is to increase knowledge of early hearing healthcare for both families with children with hearing loss and those multidisciplinary team members who work with such families. It provides a roadmap to support the achievement of earlier identification and intervention for children with hearing loss, with a potential of better outcomes for these individuals. It provides access to information of local pediatric audiology centers services/interventions and resources at a local and national level.

After reviewing the document, please fill out this brief questionnaire:

https://forms.gle/xABV1m2nkiLFRVjn9

This will allow authors to continue revising content to ensure it is up-to-date and accessible.

A special thank you to all authors and those who have contributed to this project:

Jazmin Miramontes, B.A Hannah Wilson, B.A Alexis Deavenport-Saman, DrPH Amanda Tyree, MA, CCC-SLP Kristina Rousso, AuD

If you have any questions or suggestions, please contact Kristina Rousso (Kristina.Rousso@med.usc.edu).

# California Leadership Education in Neurodevelopmental Disabilities

Located in the heart of Los Angeles, the California Leadership Education in Neurodevelopmental and Related Disabilities (CA- LEND) Training Program is one of the oldest LEND programs in the United States. Since 1966, LEND has been training leaders, educating community providers, conducting research, and promoting systems change for children with or at risk of Neurodevelopmental Disabilities (NDD) including those with Autism Spectrum Disorders.



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### Southern California Pediatric Audiology Facilities

#### **Clinic Names and Contacts**

#### **Burbank Audiology Center**

100 W Magnolia Blvd. Burbank, CA 91502 Phone: 818-859-7730

#### **Casa Colina Audiology Center**

255 East Bonita Ave., Building 1D Pomona, Ca 91767 Phone: 1-909-596-7733 x3535

Fax: 1-909-450-0345

#### **Children's Hospital Los Angeles**

4650 Sunset Blvd. Los Angeles, CA 90027 Phone: 323-361-4593 Referral Fax: 323-361-8988

#### John Tracy Center

2160 West Adams Blvd. Los Angeles, CA 90018 Phone: 1-213-748-5481

#### **Hear Center**

301 E Del Mar Blvd. Pasadena, CA 91101 Phone: 626-796-2016 Fax: 626-796-2320

#### House Children's Hearing Center

1127 Wilshire Blvd, Suite 1620 Los Angeles, CA 90017 Phone: 213-423-7200

#### **Providence Speech and Hearing**

1301 Providence Avenue Orange, CA 92868-3892 Phone: (714) 639-4990

#### Rady Children's Hospital-San Diego

3665 Kearny Villa Rd, Suit #400 San Diego, CA 92123 Phone: 858-966-8100 Fax: 856-966-7803

#### **UCLA Health**

Peter Morton Medical Building 200 UCLA Medical Plaza, Suite 540 Los Angeles, CA 90095 310-825-5721

#### USC Caruso Family Center (CFC) for Childhood Communication

1640 Marengo St., Suite 100 Los Angeles, CA 90033



### Roadmap for Families

1 MONTH:

**HEARING SCREENING** 

#### 3 MONTHS:

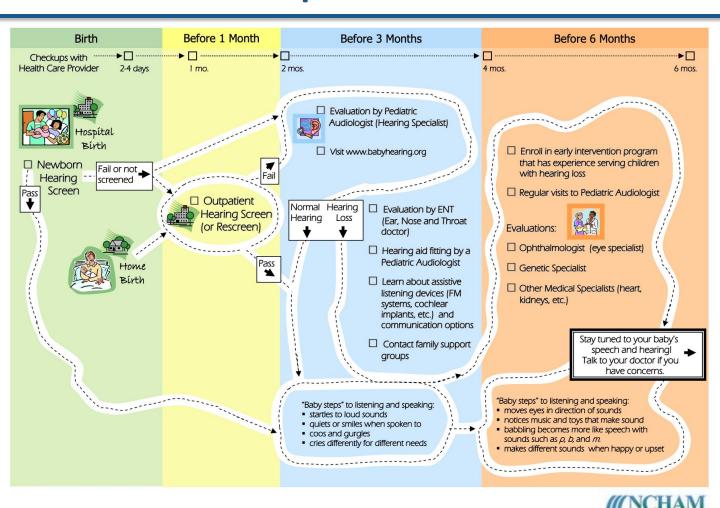
**DIAGNOSIS OF HEARING LOSS** 

#### **6 MONTHS:**

INTERVENTION

MANAGEMENT AND EARLY INTERVENTION SERVICES

### Roadmap for Families



#### WHY FOLLOW 1:3:6 GUIDELINES?

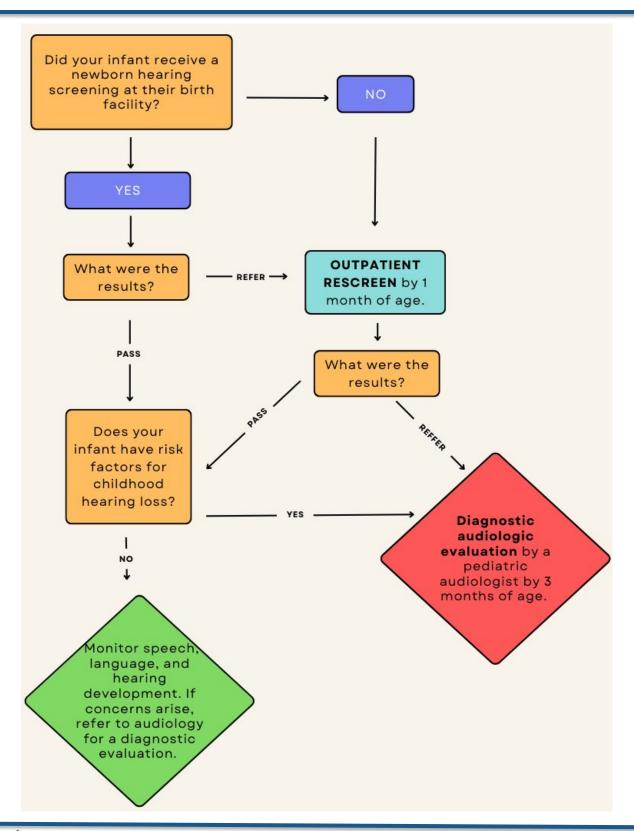
Approximately 1 to 3 per 1,000 infants in the United States are born with a permanent hearing loss in one or both ears (CDC, 2019). Undetected hearing loss can put children at risk for delays in speech and language development, academic achievement, and social and emotional development (Davis, Elfenbein & Bentler, 1986). These outcomes can be significantly improved by early diagnosis of hearing loss and timely intervention (Yoshinaga-Itano et al., 1988). To address earlier intervention for children with hearing loss, the Early Hearing Detection and Intervention (EHDI) system recommends that children should be screened by one month, diagnosed by three months, and start intervention by six months – known as the "1:3:6" guidelines. This guide will break down each step from the newborn hearing screening to diagnosis and intervention for children with hearing loss.



### STEP 1

### NEWBORN HEARING SCREENING: BY 1 MONTH OF AGE

### STEP 1: Overview



### STEP 1

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### WHO: Newborn Hearing Screening



#### WHAT BABIES SHOULD BE SCREENED FOR HEARING LOSS?

#### **EVERY BABY!**

Newborn hearing screenings are universal across the United States with the goal of providing screenings to 100% of babies born. Hearing loss can be invisible for the first few years of life; however, hearing is crucial for speech/language development, academic achievement, and social development (Davis, Elfenbein & Bentler, 1986). Newborn hearing screenings are the first step in ensuring children with hearing loss receive timely identification and intervention, leading to better outcomes. CDC data from 2021 shows 99.5% of California infants received a newborn hearing screening. The goal is for 100% of newborns to receive a newborn hearing screening.

### **WHY:** Newborn Hearing Screening



#### WHY SCREEN INFANTS FOR HEARING LOSS?

Approximately 1-3 per 1,000 infants in the United States are born with a permanent hearing loss in one or both ears. Prior to universal newborn hearing screenings, children were not often identified with hearing loss until speech/language concerns were apparent (18 months - 3 years of age). The California Department of Healthcare Services (DHCS), Children's Medical Services (CMS) has implemented a statewide Newborn Hearing Screening Program to navigate earlier identification of hearing loss leading to improved outcomes for speech and language learning.

### **HOW**: Newborn Hearing Screening





aABR Screening

**OAE Screening** 

### **HOW ARE INFANTS SCREENED FOR HEARING LOSS?**

There are two types of technology used to screen infants' hearing; Automatic Auditory Brainstem Response (aABR) and Otoacoustic Emissions (OAE).

The technology utilized depends on the birthing facility and possible risk factors associated with your infant.

Both screening tools identify infants that may have hearing loss.

### My Baby Did Not Receive a Hearing Screening!



#### WHAT IF MY BABY DIDN'T RECEIVE A SCREENING AT THE HOSPITAL?

If your baby did not receive a hearing screening at their birth facility, it is advisable to be scheduled for an outpatient appointment shortly after discharge.

#### WHAT IF MY BABY WAS BORN AT HOME OR WITH A MIDWIFE?

If your baby was born at home or with a midwife and did not receive a hearing screening, it is important to be scheduled for one shortly after birth.

If you are unsure where to go for a hearing screening contact your designated HCC or visit <a href="ehdipals.org">ehdipals.org</a> or

https://www.dhcs.ca.gov/services/nhsp/Documents/ProviderDirectories/OPDirectory.pdf



### **Hearing Coordination Centers**



All newborn hearing screening results will be reported to Hearing Coordination Center (HCC) based on geographic location, your pediatrician, and your insurance company. The HCC will track newborn hearing screening results to ensure infants receive timely audiologic care.

If you have any questions about your newborn's hearing screening or are unsure about the next steps, please reach out to your designated HCC for guidance.

#### Regions A & B

Northern California Hearing Coordination Center (NCHCC) 1183A Quarry Lane

Pleasanton, CA

Phone: (800) 645-3616, Press #3 Fax Number: (800) 866-1074 E-mail: hccnorthern@natus.com

#### Region C & D

Southern California Hearing Coordination Center (SCHCC) 1200 California St.

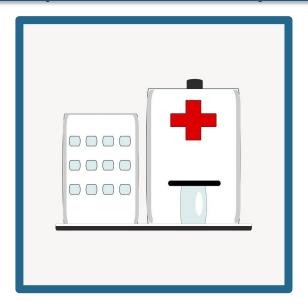
**Suit 108** 

Redlands, CA 92374 Phone: (909) 793-1291 Toll Free: (877) 388-5301 Fax: (909) 498-7982

Email: southern.hcc@natus.com



## Outpatient Hearing Screening (or Rescreen)



### **OUTPATIENT SCREENING (AKA RESCREENING)**

An outpatient hearing screening (or rescreening) is necessary when your infant does not pass or did not receive the newborn hearing screening at the hospital.

Your hospital should have provided you with information on the rescreen. Some hospitals will schedule an appointment for you while others require you to call and schedule.

If you are unsure where to go for the rescreen, contact your hospital. If you have difficulties contacting the hospital, visit <a href="mailto:ehdipals.org">ehdipals.org</a> or

https://www.dhcs.ca.gov/services/nhsp/Documents/Provider <u>Directories/OPDirectory.pdf</u> for a voluntary list of sites that provide hearing screenings.



### Importance of Outpatient Screenings



It is important that you attend this outpatient hearing screening to determine if further hearing testing is needed!

THE RESCREEN SHOULD OCCUR BY THE TIME YOUR INFANT IS 1 MONTH OLD.

Remember: the earlier your child is diagnosed with hearing loss, the earlier they can receive appropriate intervention/services leading to better outcomes.

For more information on why an outpatient screening is important, watch this video of families discussing the importance of follow up: <a href="https://handsandvoices.org/virtual-waiting-room/video.html">https://handsandvoices.org/virtual-waiting-room/video.html</a>



### Screening Results

After your baby receives the hearing test, results will either indicate a **PASS** or a **REFER**.

#### WHAT DOES A PASS MEAN?



A pass on the newborn hearing screening means that your baby likely hears within the normal hearing range. Although your baby passed, it is important to monitor speech and language development as hearing loss can develop at any time. Also, if your baby has certain risk factors, they may need to be monitored by audiology even if they passed the newborn hearing screening.



#### WHAT DOES A REFER MEAN?

A refer means that your baby did not pass the newborn hearing screening and needs further audiologic (hearing) testing. It is important to visit a pediatric audiologist to fully evaluate your infants hearing at this time. There are many reasons a baby will not pass a newborn hearing screening, however, do not assume it is just fluid. A timely diagnostic evaluation is needed to determine if your baby has hearing loss.

### Screening Results: REFER



If your baby did not pass, a referral should have been made for a diagnostic evaluation. If you are unsure where to go for this visit, contact the facility where the newborn hearing screening was performed or contact your designated HCC.

The diagnostic evaluation should be scheduled before your infant turns 3 months old.

### Risk Factors



Even if your baby passed their newborn hearing screening, a diagnostic audiologic evaluation may be necessary.

There are certain risk factors that are associated with an increased risk of developing hearing loss, therefore these babies need to be closely monitored as hearing can change over time.

The following two pages list the agreed upon Risk Factors for Early Childhood Hearing Loss by the Joint Committee on Infant Hearing (2019).

If your baby has any of the following risk factors, ensure the proper referrals have been made to see a pediatric audiologist. If you are unsure how to seek out a referral, talk to your child's pediatrician.

### Risk Factors cont.

RISK FACTOR	RECOMMENDED DIAGNOSTIC FOLLOW-UP
Family history of early, progressive or delayed onset permanent childhood hearing loss	by 9 months of age
Neonatal intensive care of more than 5 days	by 9 months of age
Hyperbilirubinemia with exchange transfusion	by 9 months of age
Aminoglycoside administration of more than 5 days	by 9 months of age
Asphyxia or Hypoxic Ischemic Encephalopathy	by 9 months of age
Extracorporeal membrane oxygenation (ECMO)	No more than 3 months following ECMO and at least every 12 months until child is school-age
In utero infections (herpes, rubella, syphilis, and toxoplasmosis)	by 9 months of age
In utero infection with cytomegalovirus (CMV)	No more than 3 months following ECMO and at least every 12 months until age 3
Mother and infant with Zika	aABR screening by 1 month and diagnostic evaluation (ABR by 4-6 months OR VRA by 9 months)

### Risk Factors cont.

RISK FACTOR	RECOMMENDED DIAGNOSTIC FOLLOW-UP
Craniofacial malformations (microtia/atresia, ear dysplasia, oral facial clefting, white forelock, microphthalmia	By 9 months of age
Congenital microcephaly, hydrocephalus (congenital or acquired)	
Temporal bone abnormalities	
The over 400 syndromes associated with hearing loss. For more information visit hereditaryhearingloss.org	By 9 months of age
Bacterial or viral infections associated with hearing loss (herpes, varicella, meningitis, encephalitis).	No later than 3 months following infection and every 12 months until child is school-age
Significant head trauma Chemotherapy	No later than 3 months following occurrence and continued monitoring per findings
Caregiver concern regarding hearing, speech, language, developmental delay or developmental regression	Immediate referral and monitoring per findings or continued concerns.

### Developmental Milestones



Even if your baby passed the newborn hearing screening, monitoring developmental milestones is very important.

If there are any concerns that your child is not reaching typical developmental milestones, a referral to audiology is recommended.

The following page includes abbreviated speech/language and hearing/understanding milestones.

For a comprehensive list of developmental milestones, visit <a href="https://www.cdc.gov/ncbddd/actearly/milestones/index.html">www.cdc.gov/ncbddd/actearly/milestones/index.html</a>

If you have any questions, ask your pediatrician!

If you have questions or concerns about development and are seeking assistance, reach out to *Help Me Grow* at (833) 903-3972 or visit their website at

https://admin.publichealth.lacounty.gov/mch/helpmegrow/index.html



### CDC's Milestone Tracker







Access developmental milestones conveniently on your phone by searching for "CDC's Milestone Tracker" on your app store. The CDC has developed this app to assist parents and families in tracking milestones.



### Developmental Milestones

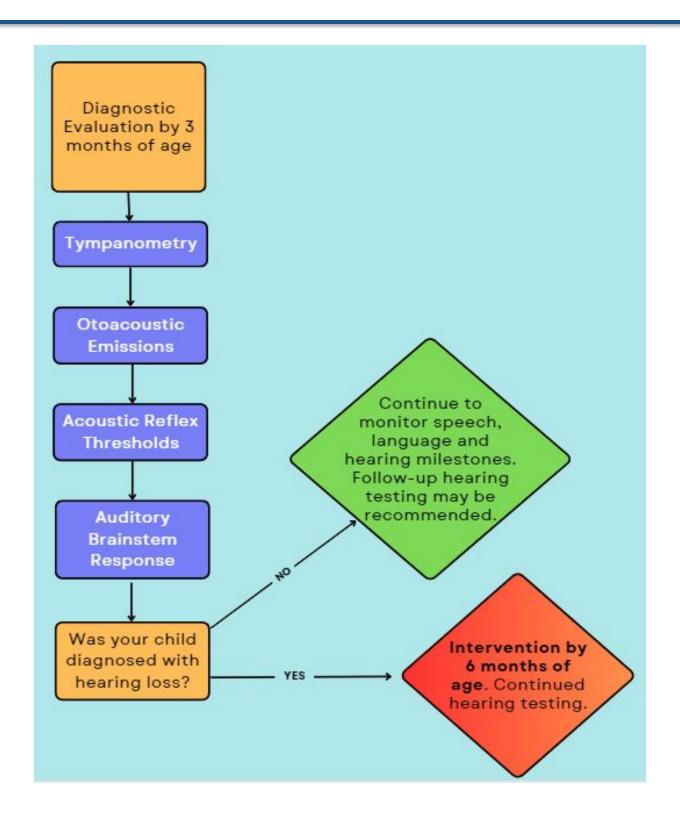
Check (✔) If Met	Age	Speech/Language Milestones	Hearing/Listening Milestones
	0-3 months	Coos, gurgles, cries	Startled by loud sounds, turns head towards voices
	4-6 months	Babbling, imitating sounds	Responds to familiar voices, recognizes own name
	7-12 months	First words, gestures (pointing, waving)  Typically has 1-3 words	Understands simple commands, responds to own name
	13-24 months	Vocabulary expansion, combining words (2+)  Typically has between 50-300 words	Follows simple instructions, points to body parts
	25-36 months	Longer sentences, basic grammar Has 500-900 words	Understands simple questions, follows two-step commands
	37-48 months	Clearer speech, storytelling Says sentences with 4+ words	Follows more complex instructions, understands emotions
	49-60 months	Complex sentences, storytelling with details	Understands spatial concepts, can retell a story
	61-72 months	Advanced language skills, understands jokes	Listens attentively, understands cause and effect

### STEP 2

### DIAGNOSIS OF HEARING LOSS BY 3 MONTHS OF AGE



### STEP 2: Overview



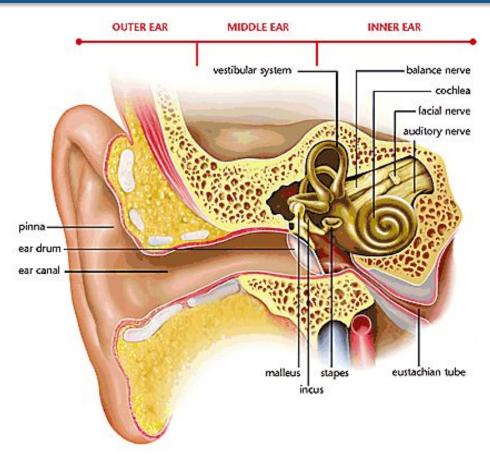
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### How We Hear



#### **How We Hear:**

#### » Outer ear:

 Consists of the ear canal and eardrum. Sound (vibration) travels down the ear canal, striking the eardrum and causing it to move or vibrate.

#### » Middle ear:

- A space behind the eardrum that contains three small bones. This chain of tiny bones is connected to the eardrum at one end and to an opening to the inner ear at the other end.
- Vibrations from the eardrum cause the bones to move which causes fluid in the inner ear to move.

#### » Inner ear:

Movement of the fluid in the inner ear, or cochlea (koh-klee-uh), causes
movement in tiny structures called hair cells. Movement of the hair cells sends
electrical signals from the inner ear up the auditory nerve (also known as the
hearing nerve) to the brain.

### Diagnostic Evaluation by a Pediatric Audiologist

If your baby did not pass the newborn hearing screening or has risk factors for childhood hearing loss, a diagnostic evaluation should be conducted **before your baby turns 3 months old.** (Review the risk factors on pages 20-21 to determine if your baby should have a diagnostic test). It is important that this test be performed by a pediatric audiologist.

The diagnostic evaluation will determine **if your child has hearing loss** and if they do, what **type and degree** of hearing loss your child has.

There are different types of tests that allow an audiologist to evaluate different parts of the ear.

#### Tests that evaluate the health of the ear:

- Tympanometry
- Otoacoustic Emissions (OAEs)
- Acoustic Reflex Thresholds (ARTs)

#### Tests of hearing levels at different frequencies:

- Auditory Brainstem Response (ABR)\*
- Visual Reinforcement Audiometry (VRA)
- Conditioned Play Audiometry (CPA)
- Conventional Audiometry

\*The Auditory Brainstem Response is an accurate measure of hearing for infants; however, behavioral testing (VRA, CPA and conventional audiometry) is considered the *gold standard*. Even if your child has normal hearing on an ABR, behavioral testing as they grow older is recommended.

Pediatric audiologists are essential to diagnose and treat childhood hearing loss, particularly those with prelingual or late-onset hearing loss, due to their specialized training and equipment that are specifically tailored to the needs of young children.

### **Tympanometry**



#### **TYMPANOMETRY**

Tympanometry is a quick objective measurement that assess how well the eardrum moves. This test does not measure hearing, but rather assesses how well sound can move through the ear. An audiologist will be able to tell if your baby has fluid in their ears with this test.

### **Otoacoustic Emissions (OAEs)**



#### **OTOACOUSTIC EMISSIONS**

Otoacoustic emissions (OAEs) are a quick objective test that evaluates the health of the hearing organ (the cochlea). A healthy cochlea produces a quiet output of sound (or an echo) in response to receiving a sound. The OAE test measures this echo response. If responses are measured, this typically means hearing is normal/near-normal; however, a mild hearing loss cannot be ruled out using this type of test.

### Acoustic Reflex Thresholds (ARTs)



#### **Acoustic Reflex Thresholds**

A healthy ear has a small reflex response when exposed to loud sound. The audiologist can measure this reflex to determine if the pathway is working correctly. It is not a test of hearing, but rather an evaluation of the middle ear reflex and part of the auditory pathway to the brain. This measurement helps us better understand behavioral hearing responses as these threshold levels are associated with certain degrees of hearing loss.

### Auditory Brainstem Response (ABR)



#### **AUDITORY BRAINSTEM RESPONSE (ABR)**

An auditory brainstem response (ABR) is an accurate and reliable measure of hearing for infants. The audiologist will place stickers (or electrodes) on your infant and measure the brain's response to sound at different frequencies or pitches. This test allows audiologists to determine if there is a hearing loss and what type/degree. For infants less than 6 months of age, this test is typically performed under natural sleep. For children older than 6 months, the test may be performed under sedation.

### **ABR Tips**

### TIPS FOR A SUCCESSFUL ABR



An ABR test is performed when an infant is sleeping. It can take anywhere from 45 minutes to 2 hours, therefore ensuring your infant sleeps well for this amount of time is important. There are certain recommendations that an audiologist will make to ensure for a successful ABR. Bringing a friend or partner along for the evaluation is helpful to ensure these tips are followed!

### 1. Sleep deprivation

If safe and possible, it is recommended to arrive to the ABR appointment with a sleepy, but awake infant. Keeping your baby up later the night before, waking them up earlier the morning of, and ensuring they do not sleep on the way to the appointment ensures a sound sleep during testing.

#### 2. Hunger

If safe and possible, it is recommended to try to withhold feeds so that the baby arrives to the appointment hungry. Once prepared for the test, the baby can eat to fall and stay asleep for the testing.

### 3. Comfort

Dress your baby in comfortable clothing and bring a familiar blanket so they are comfortable during the test. If your infant sleeps better in your arms, you may be asked to hold your baby for the duration of the test. Your comfort is equally important! Make sure you wear comfortable clothing and bring any other things that you think may help during the test.

# Visual Reinforcement Audiometry (VRA)



### **VISUAL REINFORCEMENT AUDIOMETRY (VRA)**

Visual reinforcement audiometry (VRA) is a type of behavioral test where your child is trained to turn to toys that light up in the room when they hear a sound. This type of testing is typically performed for children aged 6 months - about 3 years. Your child may wear headphones/earphones for this test and will sit on your lap. A test assistant may be present in the room with you to assist with the test.

# Conditioned Play Audiometry (CPA)



### **CONDITIONED PLAY AUDIOMETRY (CPA)**

Conditioned Play Audiometry (CPA) is a type of behavioral test where your child is trained to play a game, put a toy in a bucket, etc., in response to sound. This type of testing is typically performed for children aged 3 years-5 years. Your child will be asked to wear headphones / earphones during this type of testing and it is performed when a child can follow simple directions. A test assistant may be present in the room to help your child play the game.

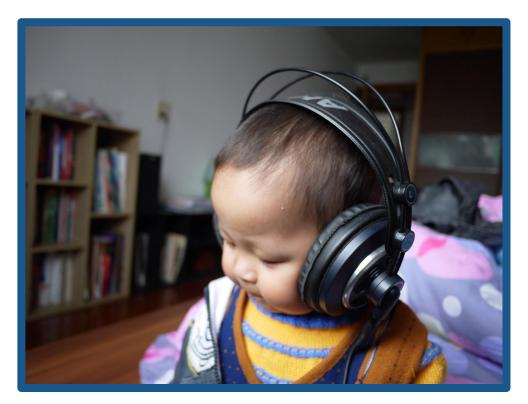
# **Conventional Audiometry**



#### **CONVENTIONAL AUDIOMETRY**

Conventional audiometry is when your child raises their hand or presses a button in response to sound. This type of testing is typically performed for children aged 5 years and older. Your child will be asked to wear headphones / earphones for this test.

# What if my child will not cooperate for hearing testing?



There are many reasons why a child may not be able to complete a full hearing test (age, developmental status, alertness, etc.,)

However, there are certain things you can do at home to help promote a successful hearing test.

- 1. Practice wearing headphones / earbuds at home.
- 2. Play sounds on your phone and give a reward/ flash your flashlight when your child turns their head to the sound.
- 3. Play a listening game at home. Ask your child to put a toy in a bucket every time they hear a sound.
- 4. Show your child videos of other children doing hearing tests to know what to expect.



# Questions to Ask Your Audiologist

- 1. Does my child have hearing loss? If so, what type?
- 2. Is the hearing loss permanent?
- 3. Does my child need additional hearing testing?
- 4. How often should my child have a hearing test?
- 5. Will this hearing loss get worse?
- 6. Is there hearing loss in both ears? Do they have the same hearing loss?
- 7. What could have caused the hearing loss?
- 8. Would you recommend genetic counseling?
- 9. Does my child need a hearing aid or a cochlear implant? Explain the process of obtaining these devices.
- 10. Will my child develop speech and language without hearing technology?
- 11. What are other communication options?
- 12. Should I start early intervention?
- 13. How do I describe this to my family?
- 14. Is there a family support group I can contact?



# Questions to Ask Your Audiologist

As you navigate this new diagnosis of hearing loss, jot down questions of your own and bring to your next audiology visit.

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# "Your Child Has Hearing Loss"

Discovering that your child has a hearing loss can bring up a wide range of emotions. You may feel shocked, confused, or sad. Or, you may feel relieved or even excited! Following a new diagnosis, your feelings may change and it may even feel like you are on a roller coaster. Take time for yourself to feel these feelings and know there is not one way to react to the news that your child has hearing loss.

A majority of children with hearing loss are born into families with hearing parents. Therefore, it is common to not know much about hearing loss. Ask questions! Your audiologist is there to help and support you through this new diagnosis. When questions come up, ask!

Your audiologist will have recommendations for you following the diagnosis of hearing loss. It may be a lot to keep track of! Keep this guide close and use it to help navigate appointments and to keep track of questions.

Embrace the available support services, including educational planning, counseling, and community resources. Recognize that your active involvement is important in shaping your child's path forward. This journey is unique for each family, and the professionals involved are ready to provide not only expertise but also empathy and encouragement as you navigate the road ahead.



Welcome To Holland
by Emily Perl Kingsley
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I am often asked to describe the experience of raising a child with a disability - to try to help people who have not shared that unique experience to understand it, to imagine how it would feel. It's like this.....

When you're going to have a baby, it's like planning a fabulous vacation trip - to Italy. You buy a bunch of guide books and make your wonderful plans. The Coliseum. The Michelangelo David. The gondolas in Venice. You may learn some handy phrases in Italian. It's all very exciting.

After months of eager anticipation, the day finally arrives. You pack your bags and off you go. Several hours later, the plane lands. The flight attendant comes in and says, "Welcome to Holland."

"Holland?!?" you say. "What do you mean Holland?? I signed up for Italy! I'm supposed to be in Italy. All my life I've dreamed of going to Italy."

But there's been a change in the flight plan. They've landed in Holland and there you must stay.

The important thing is that they haven't taken you to a horrible, disgusting, filthy place, full of pestilence, famine and disease. It's just a different place.

So you must go out and buy new guide books. And you must learn a whole new language. And you will meet a whole new group of people you would never have met.

It's just a different place. It's slower-paced than Italy, less flashy than Italy. But after you've been there for a while and you catch your breath, you look around.... and you begin to notice that Holland has windmills....and Holland has tulips. Holland even has Rembrandts.

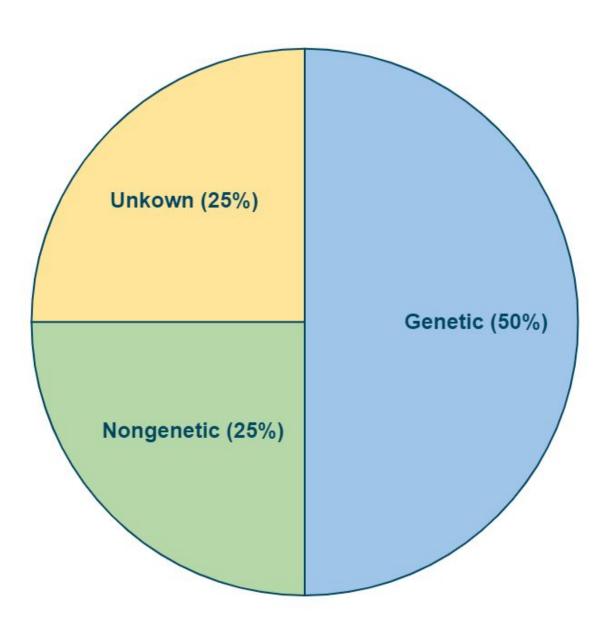
But everyone you know is busy coming and going from Italy... and they're all bragging about what a wonderful time they had there. And for the rest of your life, you will say "Yes, that's where I was supposed to go. That's what I had planned."

And the pain of that will never, ever, ever go away... because the loss of that dream is a very very significant loss.

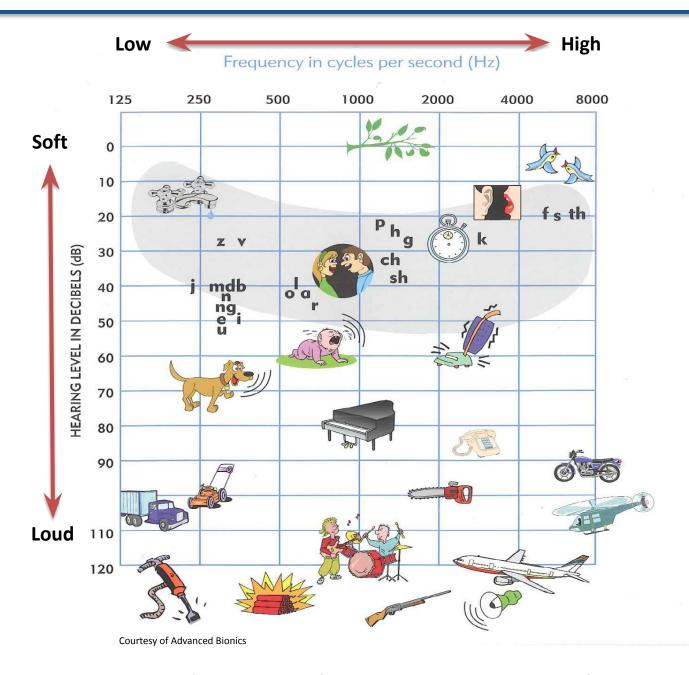
But... if you spend your life mourning the fact that you didn't get to Italy, you may never be free to enjoy the very special, the very lovely things ... about Holland.



# **Hearing Loss Causes**

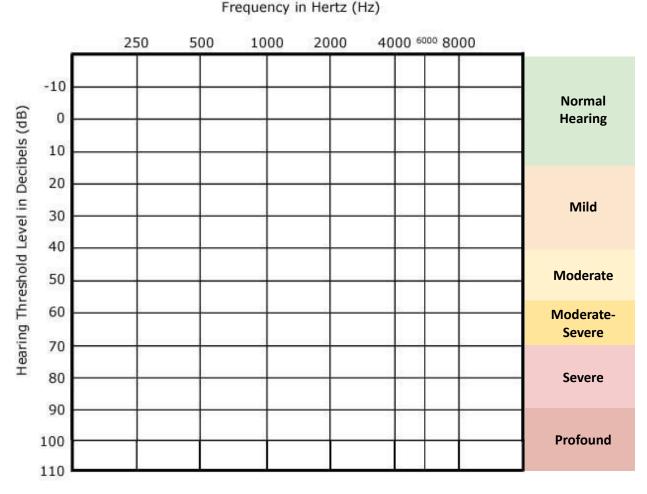


# Familiar Sounds Audiogram



An **audiogram** (as seen above), is a graph that shows the softest sounds a person can hear across different frequencies or pitches. The pictures show loudness and pitch of speech sounds and sounds in our environment. The gray shaded area is where most conversational **speech sounds** lie.

# How to Interpret Your Audiogram

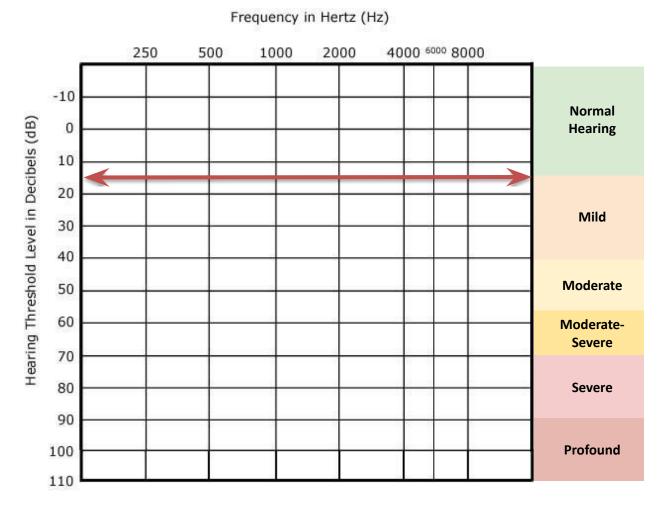


The horizontal (x) axis of an audiogram displays *frequencies* (or pitches) ranging from very low pitches on the left to the very high pitches on the right.

The **vertical axis (y) axis** displays *loudness* ranging from very quiet (-10 dB HL) at the top to very loud (110 dB HL) at the bottom.

Your audiologist may have written X's and O's on this graph. The X's represent the softest level the LEFT ear hears and the O's represent the softest level the RIGHT ear hears. Different centers may use other symbols (please refer to the key on your audiogram).

# How to Interpret Your Audiogram



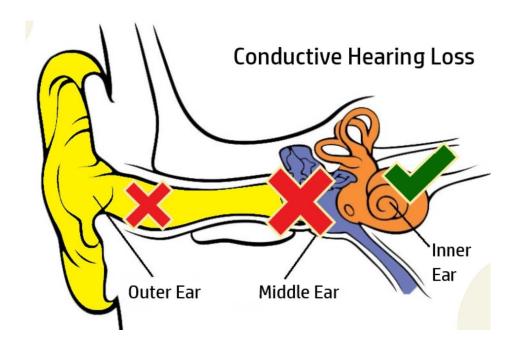
The *red line* on the graph above represents the *cut-off for normal hearing* used for children (15 dB HL). If the X's and O's are plotted louder than the red line (towards the bottom of the graph), this represents a hearing loss. If they are plotted softer (towards the top of the graph), this indicates normal hearing.

Where on the graph the X's and O's are plotted demonstrates the degree of the hearing loss. The next page describes the different levels of hearing loss.

# Degree of Hearing Loss

Degree of Hearing Loss	Decibels (dB HL)	Communication Implications
Normal Hearing	-10-15 dB HL	No or minimal listening difficulties in quiet or noisy environments.
Mild	16-40 dB HL	No or minimal listening difficulties in quiet environments; however, may have difficulties in noisy environments.
Moderate	56-70 dB HL	May have difficulties in quiet environments and will have difficulties in noisy environments. Will hear conversational speech at a raised volume in quiet.
Moderate-Severe	56-70 dB HL	Listening difficulties in both quiet and noisy environments. May hear conversational speech at a raised volume in quiet.
Severe	71-90 dB HL	Does not hear most conversational speech in quiet, extreme difficulty in noisy environments. May hear loud environmental sounds.
Profound	>/= 91 db HL	Extreme listening difficulties in both quiet and noisy environments. May hear extremely loud sounds.

# **Types of Hearing Loss**



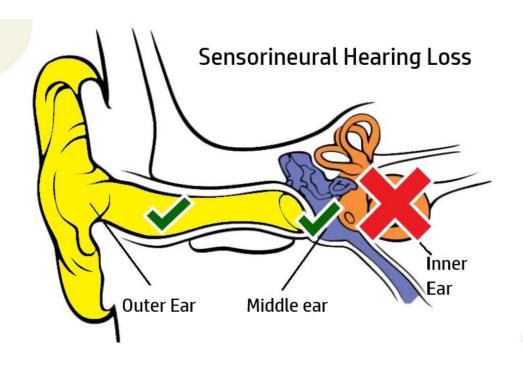
# **Conductive Hearing Loss (CHL)**

Hearing loss affecting the outer and/or middle ear. Possible causes of conductive hearing loss include, but are not limited to:

- Ear infections (otitis media): Inflammation of the middle ear
- Anatomical differences: Varied structural variations in the ear
  - Stenotic ear canals: Narrowing of the ear canals
  - Atresia: absence or closure of the ear canal
  - Microtia: underdeveloped external ear
  - Anotia: absence of the external ear

This type of hearing loss may be permanent or temporary. It may be able to be treated by medical intervention by a pediatrician or Ear Nose and Throat Physician. If it can not be medically treated, a hearing aid may be appropriate.

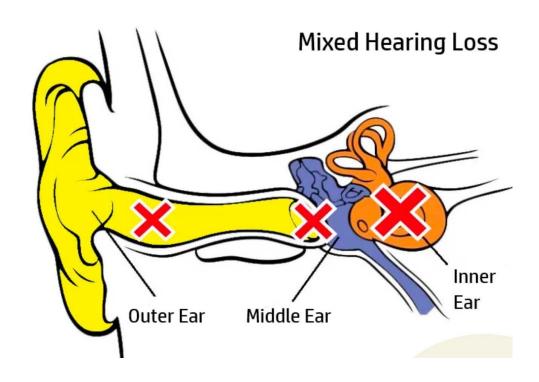
# Types of Hearing Loss



# **Sensorineural Hearing Loss (SNHL)**

Hearing loss affecting the inner ear (cochlea) and/or the auditory nerve (CNVIII). This type of hearing loss is commonly permanent and is typically managed with hearing aids or cochlear implants.

# Types of Hearing Loss



## **Mixed Hearing Loss (MHL)**

Hearing loss that has both conductive and sensorineural components. This type of hearing loss has portion of likely permanent hearing loss and a portion that may need medical intervention. Hearing aids and/or medical management may be appropriate for this type of hearing loss.



# Timely screening / diagnosis of cCMV leads to improved care and outcomes for children.

### WHAT IS CMV?

Cytomegalovirus is a common viral infection. About 30% of individuals have contracted the virus by age 5 and 50-70% by age 40 with the majority showing no symptoms at all. Congenital CMV (cCMV) is when a mother is infected with CMV during pregnancy and the virus is passed onto the baby.

#### **HOW COMMON IS cCMV?**

It is estimated that about 1 in 200 babies will be affected by cCMV, making this the most common congenital virus worldwide. The majority of babies with cCMV will not show any symptoms of the virus at birth and about 75% will never have concerns.

### cCMV AND HEARING LOSS.

cCMV is the most common non-genetic cause of congenital hearing loss.

- Hearing loss may be present at birth or develop over the first 3-5 years of a child's life.
- Hearing loss can range in severity and may affect one or both ears.

Ongoing monitoring for hearing loss is needed for these children

### TIMELY cCMV SCREENINGS.

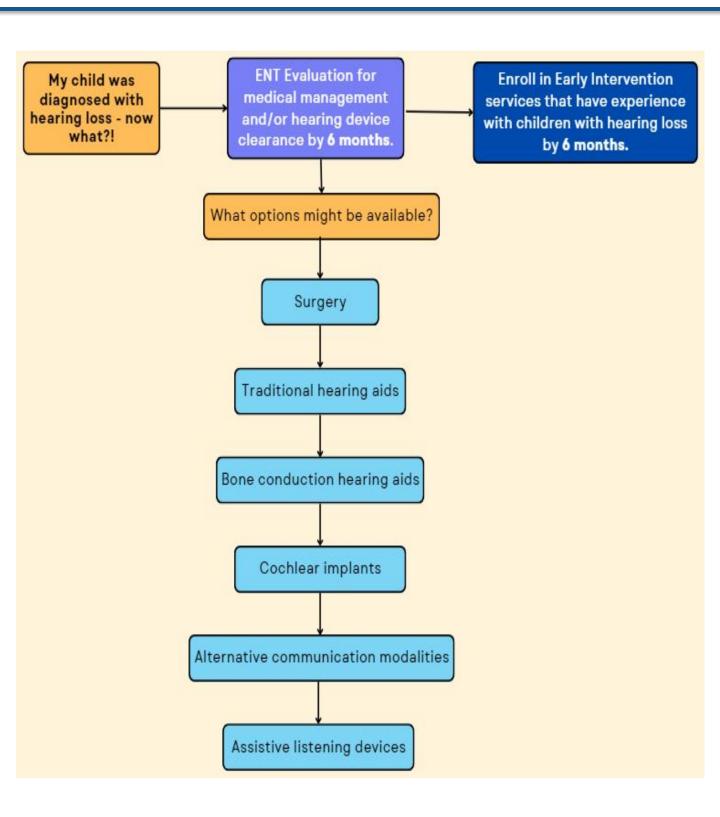
Unfortunately, many parents are unaware if their babies have CMV at birth. If your baby is less than 21 days old, ask your birth facility for a cCMV screening if your infant has not already received one.



# STEP 3

# INTERVENTION BY 6 MONTHS OF AGE

# STEP 3: Overview



# STEP 3

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# Next steps: ENT Evaluation



Following a diagnosis of hearing loss, a referral must be made to an Ear, Nose and Throat (ENT) provider.

The ENT will evaluate the ears medically and determine if *surgery/medication* is needed. They will also provide *medical clearance for hearing device* use if indicated.

# Next Steps: Treatment/Management Options

The treatment and management options for children with hearing loss depends on the type and severity of the hearing loss. **The goal of treatment/management is to provide early access to language.** 

## Medical Intervention (surgery, medication, etc)

Following a diagnosis of hearing loss, a referral to an Ear Nose and Throat (ENT) Specialist is necessary. They will evaluate your child's ears medically to determine if surgery or medication is recommended for the hearing loss. They will also provide medical clearance for hearing devices (hearing aids, cochlear implants).

## **Hearing Aids**

Hearing aids are an option for many permanent or long-standing hearing losses. There are two main types of hearing aids: traditional hearing aids and bone conduction hearing aids.

The following two pages explain the differences of these devices.

### **Cochlear Implants**

Cochlear implants are for hearing loss in the range of moderate to profound or when hearing aids are not providing adequate access to speech sounds for speech understanding. A trial with a hearing aid is necessary before implantation.

### **Communication Strategies**

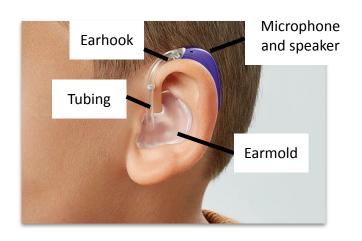
For some types of hearing losses, it may be necessary to use an alternative mode of communication to provide access to language. Access to language (spoken language with device use vs manual communication) is the most important!

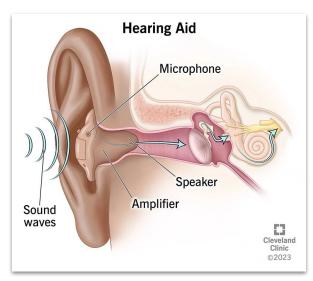
### **Assistive Listening Devices (ALDs)**

Assistive listening devices cover a wide range of technology that helps improve access to auditory information. Some can be used with hearing aids and some can be used on their own. A few examples include FM systems, induction loops, and personal amplifiers.



# How a Hearing Aid Works





A hearing aid works by amplifying sounds to make them audible for individuals with hearing loss.

- **1. Microphones:** The hearing aid contains a microphone that picks up sounds from the environment.
- **2. Amplifier:** The incoming sounds are then processed and amplified by an electronic amplifier within the hearing aid.
- **3. Receiver (Speaker):** The amplified signals are sent to a tiny speaker, known as the receiver, which delivers the enhanced sound into the ear.
- **4. Earhook:** A small piece of plastic that helps keep the hearing aid on the ear and connects the body of the hearing aid to the tubing.
- **Tubing:** Plastic tubing that helps deliver amplified sound to the ear. Tubing will need to be changed frequently due to growth of the child and general wear and tear.
- **Earmold:** A custom piece that fits into the child's ear allowing for sound to enter the ear canal. Like tubing, earmolds will frequently be changed due to growth.

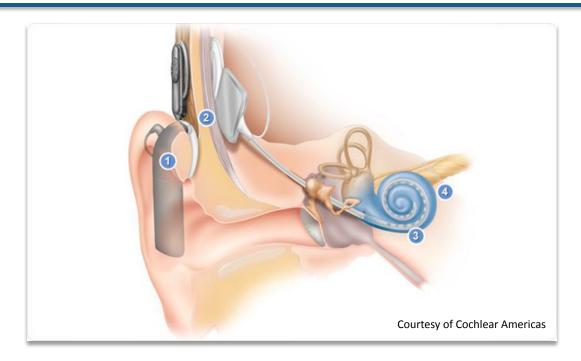
# How a Bone Conduction Hearing Aid Works



A bone conduction hearing aid works by sending environmental sounds to the hearing organ through vibrations. This type of device may be appropriate for individuals with conductive or mixed hearing losses, or those with single-sided deafness (SSD). When children are young, it can be used with a headband. As a child grows older, it can be surgically implanted. Surgical bone conduction devices can be connected through an abutment (as seen above) or through a magnet surgically implanted under the skin.

- **1. Microphones:** The device contains a microphone that picks up sounds from the environment.
- **2. Sound processor:** The environmental sounds are processed within the device.
- **3. Vibration Transducer:** Instead of a traditional speaker, a bone conduction device sends processed sound directly to the hearing organ through vibrations.

# How a Cochlear Implant Works



A cochlear implant is made up of equipment worn on the outside of the ear and equipment surgically placed inside the ear. During surgery, a cut is made behind the ear and the internal pieces (receiver and electrode array) are secured under the skin and hair. The electrode array is placed into the cochlea, stimulating the hearing nerve when turned on.

## 1. External hardware (includes microphone, speech processor, coil/cable and battery)

- The microphone captures sound in our environment.
- The speech processor converts the environmental sound into a digital signal.
- The signal is sent through the cable to the transmitting coil.

### 2. Internal receiver

• The signal is sent across the skin to the implant, where it is converted to electrical energy and decoded.

### 3. Electrode array

• The electrical energy is sent to the electrode array within the cochlea, where it stimulates the hearing nerve.

### 4. Hearing nerve

• The stimulation of the hearing nerve is perceived as sound.



# **Communication Modalities**

Modality	Description	Resources
Listening and Spoken Language (LSL) Therapy	Focuses on developing listening skills for spoken language comprehension; involves early intervention and parent participation.	Los Angeles Unified (LAUSD) 333 South Beaudry Avenue Los Angeles, CA 90017 Email: tdk0434@lausd.net Website:https://www.lausd.org/Page/17248  Auditory Learning Center Cameron Village 400 Oberlin Road, Suite 205 Raleigh, NC 27605 P.O. Box 12050 E-mail: rosalie@auditorylearningcentre.com Website: http://auditorylearningcentre.com  Alexander Graham Bell Association for the Deaf & Hard of Hearing 3417 Volta Place, NW, Washington, DC 20007 (202) 337-5220 — (Voice) (202) 337-5221 — (TTY) Website: www.agbell.org  Hearing First Website: https://www.hearingfirst.org/contact-us
American Sign Language (ASL)	Visual-gestural language using hand movements and facial expressions; effective for profound hearing loss.	ASL at Home PO Box 601147 Sacramento, CA 95860-1147 Phone: 916-245-0327 (text/voice) Website: https://www.aslathome.org/  Los Angeles Unified (LAUSD) Marlton School 4000 Santo Tomas Dr Los Angeles, CA 90008 Phone: (323) 296-7680 Website: https://marltonschool.lausd.org/  California State University, Northridge Deaf Project 18111 Nordhoff Street Northridge, CA 91330-8265 Phone/Voice Phone: (818) 677-4007 Email: deafproject@csun.edu Website:https://www.csun.edu/deafproject/

# **Communication Modalities**

Modality	Description	Resources
American Sign Language (ASL) cont.	Visual-gestural language using hand movements and facial expressions; effective for profound hearing loss.	American Society for Deaf Children (ASDC) 3820 Hartzdale Drive, Camp Hill, PA 17011 Email: asdc@deafchildren.org Phone (Voice Hotline, Toll-free): (800) 942-2732 Phone (Voice): 1-866-895-4206 Phone (Voice): (717) 703-0073 Website: www.deafchildren.org  GLAD 2222 Laverna Ave Los Angeles CA 90041 Phone (Voice): 323-892-2225 Phone (Voice/TTY): 323-478-8000 Website: https://gladinc.org/
Signing Exact English (S.E.E)	A manual communication modality that utilizes literal English. It is often used in-tandem with total communication.	The S.E.E. (Signing Exact English) Center for the Advancement of Deaf Children P.O. Box 1181, Los Alamitos, CA 90720 (562) 430-1467 — (Voice, TTY) Website: <a href="http://seecenter.org/">http://seecenter.org/</a> Email: seecenter@seecenter.org
Total Communication	Combination of methods (speech, sign language, visual aids); adaptable to individual needs and strengths.	Los Angeles Unified (LAUSD) 333 South Beaudry Avenue Los Angeles, CA 90017 Email: tdk0434@lausd.net Website:https://www.lausd.org/Page/17248
Bimodal/Bilingual Approach	Combines visual language (e.g., ASL) with spoken language; promotes proficiency in both modalities.	Los Angeles Unified (LAUSD)  Marlton School  4000 Santo Tomas Dr  Los Angeles, CA 90008  Phone: (323) 296-7680  Website: https://marltonschool.lausd.org/
Cued Speech	Hand cues alongside speech to clarify language; enhances lip-reading and speech perception.	National Cued Speech Association P.O. Box 2733 Fairfax, VA 22031-2733 Phone: 800-459-3529 Email: info@cuedspeech.org Website: https://cuedspeech.org/
Tactile Communication	Involves touch and tactile cues for communication; beneficial for those with additional sensory impairments.	Tactile Communications, LLC.  Mammoth, OR  Website:  https://www.tactilecommunications.org/Resources/

# Hearing Loss: It takes a team!



# Other Professionals On Your Medical Team

Professional	Roles and Responsibilities
Audiologists	Conduct hearing assessments, provide hearing devices,, fittings, and offer rehabilitation services.
Otolaryngologists (ENT) Specialist	Specialize in treating ear, nose, and throat disorders; manage conditions affecting hearing. For children, a visit to the ENT is needed following a hearing loss evaluation.
Pediatricians	Specialists in the branch of medicine focusing on the health, development, and well-being of infants, children, and adolescents.
Speech-Language Pathologists (SLPs)	Assist with speech and language development; collaborate with audiologists, multidisciplinary teams, and family for therapy.
Social Worker	Provides community resource information, help gain access to community and state funded services, provides emotional support. Addresses social and environmental factors affecting overall health.
Auditory-Verbal Therapist (AVT)	Specializes in auditory skill development. Supports individuals with hearing loss in acquiring language and communication skills.
Occupational Therapist (OT)	Focuses on developing fine and gross motor skills. Enhances independence and functional abilities.
Physical Therapist (PT)	Targets gross motor skills and physical development. Aids mobility, strength, and coordination.
Developmental Pediatrician	Specializes in the developmental aspects of pediatrics. Assesses and manages developmental challenges in children.
Pediatric Neurologists	Specializes in diagnosing and treating neurological disorders in infants, children, and adolescents.
Genetic Counselors	Provides information and support to individuals and families about genetic conditions, inheritance patterns, and the potential risks associated with genetic disorders.
Opthamologists	Specializes in the diagnosis, treatment, and prevention of eye diseases and disorders. There are certain genetic conditions that affect both hearing and vision, a referral to Opthamologists is needed.
Cardiologist	Specializes in the study, diagnosis, and treatment of disorders related to the cardiovascular system, which includes the heart and blood vessels.
Early Interventionists	Group of professionals who provide early intervention services - in the home or in a school based setting.
Cochlear Implant Teams	Comprising surgeons, audiologists, and rehabilitation specialists; evaluation and management of cochlear implant cases.



# Community Resources: Hearing Aid Funding

### California Children's Services (CCS)

CCS is an income-based Medi-Cal program for children under 21 years of age with certain health conditions, including hearing loss. If eligible, CCS is a supplementary insurance plan that will cover the cost of hearing aids (including bone conduction devices and cochlear implants), supplies, and audiology services. If your audiologist or pediatrician believes your child has a CCS eligible condition, you will be referred to apply for CCS.

### **DO I QUALIFY?**

Your child may qualify if they meet the following:

- is under 21 years old
- has a health problem that is covered by CCS
- is a resident of California
- and has one of the following:
  - o family income of \$40,000 or less
  - out-of-pocket medical expenses expected to be more than 20 percent of family's adjusted gross income
  - a need for an evaluation to find out if there is a health problem covered by CCS
  - was adopted with a known health problem that is covered by CCS
  - o a need for the Medical Therapy Program
  - Medi-Cal, with full benefits

For more information, contact your local CCS office:

https://www.dhcs.ca.gov/services/ccs/Pages/CountyOffices.aspx

### **English Application:**

https://www.dhcs.ca.gov/formsandpubs/forms/Documents/DHCS-4480.pdf

### **Spanish Application:**

https://www.dhcs.ca.gov/formsandpubs/forms/Documents/DHCS-4480-SP-2023.pdf



# Community Resources: Hearing Aid Funding

### **Hearing Aid Coverage for Children Program (HACCP)**

The HACCP program offers hearing aid coverage and supplemental coverage for California residents ages 0-20.

#### WHAT IS COVERED?

- Hearing aids, assistive listening devices (ALDs) and surface-worn bone conduction hearing devices.
- Supplies (earmolds and hearing aid batteries).
- Medically necessary hearing aid accessories
- Hearing aid-related audiology and post-evaluation services
- For a full list, see:
   https://www.dhcs.ca.gov/services/HACCP/Pages/Home.aspx

#### WHO IS ELIGIBLE?

- Children and youth 0-20 years of age, residents of California
- Not eligible for Medi-Cal
- Not currently enrolled in CCS for a hearing-related condition
- Valid hearing aid prescription or provider referral
- Does not have other health coverage for hearing aids or other health coverage has a coverage limit of \$1,500 or less for hearing aids
- Household income under 600% of the federal poverty level (FPL)
   https://www.dhcs.ca.gov/services/HACCP/Pages/Families/Eligibility.aspx

#### **HOW DO I APPLY?**

For more information about the application process, see: <a href="https://www.dhcs.ca.gov/services/HACCP/Pages/Families/Application-Process.aspx">https://www.dhcs.ca.gov/services/HACCP/Pages/Families/Application-Process.aspx</a>

Of note, HACCP does not cover cochlear implants; however, many private insurance plans do.



# Community Resources: Hearing Aid Funding

### The HearAid Foundation

This is a not-for-profit 501(c)(3) California-based organization helping children and adults obtain who need financial assistance obtain hearing aids.

Newport Beach, CA

Email: hearaidfoundation@gmail.com

Phone: (949) 436-8218

Website: <a href="https://hearaidfoundation.org/">https://hearaidfoundation.org/</a>

### The HIKE FUND

This is a not for profit charity organization who provides hearing devices for children 20 years and younger with hearing loss who need financial assistance.

Website: https://thehikefund.org/

### **United Healthcare Children's Foundation**

This is a foundation which provides medical grants to children for a variety of services, including hearing aids.

Attn: MN017-W400 9700 Healthcare Lane Minnetonka, MN 55343

Phone: 1 855-MY-UHCCF / 1 (855-698-4223)
Email: <u>uhccfcustomerservice@uhc.com</u>
Website: https://www.uhccf.org/

# **Next Steps: Early Intervention**



Hearing loss can impact speech and language development, learning, social skills, and listening skills. Early Intervention is a term used for services or therapies provided to a child ages 0-3 years old. It is important for children with hearing loss to be enrolled in Early Intervention services that offer support for deaf and hard of hearing children.

### Early Intervention will

- Promote speech, language, and communication skills
- Help you understand your child's hearing loss and listening needs
- Support you
- Keep track of your child's progress
- Help you communicate with your pediatrician about milestones and development

Prior to turning 3 years of age, your child will be evaluated by the school district to determine eligibility for an Individualized Educational Plan.



# **Next Steps: Early Intervention**

## **CA-EHDI LEAD-K Family Services**

Following a diagnosis of hearing loss, your audiologist will refer you to LEAD-K. This program functions as the current California Early Hearing Detection and Intervention (EHDI). This program is specific for children with hearing loss and connects families to their local school district, Early Start home visit teachers, parent mentors, Deaf coaches and other supports outlines in an Individualized Family Support Plan (IFSP). They will also work with the Department of Education, Department of Developmental Services, and the Department of Social Services to ensure your family is receiving all necessary services.

#### **Contact Information:**

4044 N Freeway Blvd. Sacramento, CA 95834

Phone: (916) 367-0511

Email: <a href="mailto:cheryl@leadkfamilyservices.org">cheryl@leadkfamilyservices.org</a>

# California Early Start (ES) Program

Early Start is California's early intervention program for infants and toddlers with developmental delays or at risk for developmental disabilities and their families.

### **Contact Information:**

Department of Developmental Services Early Start Policy and Operations Branch 1215 O Street (MS 7-40) Sacramento, CA 95814

Phone: 800-515-BABY

Email: earlystart@dds.ca.gov



# **Next Steps: Early Intervention**

# **Regional Center**

Infants and toddlers ages 0-36 months who have a developmental delay or are at risk, may be eligible to receive services through the Regional Center. Qualifying diagnoses may be eligible for services beyond 36 months. Regional centers provide diagnosis and assessment of eligibility, and helps plan, access, coordinate and monitor services and supports.

There are 21 community-based regional centers. Their contact information can be found here: <a href="https://www.dds.ca.gov/rc/listings/">https://www.dds.ca.gov/rc/listings/</a>. For more information, contact your pediatrician.



# Next Steps: > 3 years Services

# Los Angeles Unified (LAUSD)

LAUSD provides services for eligible students ages 3-22 years with a documented hearing loss that negatively impacts communication skills and/or access to their curriculum. Services are provided through the Deaf and Hard of Hearing Itinerant Program of Special Day Program. A focus of DHH services is the development of language skills, listening skills, and self-advocacy skills with emphasis on use of residual hearing and hearing assistive technology.

LAUSD provides 3 day programs to meet the needs of students:

- Listening and Spoken Language (LSL) Special Day Programs
- Total Communication (TC) Special Day Programs
- ASL/English (written): Marton School Special Education

LAUSD audiology provides evaluation (including Central Auditory Processing Disorder) and consultative services for students, teachers families, and other staff.

### **Contact Information:**

333 South Beaudry Avenue Los Angeles, CA 90017

Email: tdk0434@lausd.net

Website: https://www.lausd.org/Page/15739

https://www.lausd.org/Page/17248

#### No Limits For Deaf Children and Families

A non-profit organization based in the United States that focuses on providing theater arts programs and educational opportunities for deaf and hard-of-hearing children with the goal of developing communication skills, expanding vocabulary and grammar, and understanding character development.

#### **Culver City Headquarters**

9801 Washington Blvd. 2nd Floor Culver City, CA 90232

Phone: 310-280-0878

#### **No Limits Oxnard**

1700 Lombard St.
Oxnard, CA 93030 **Phone:** 805-485-3303

Website: https://www.nolimitsfordeafchildren.org/

### **John Tracy Center**

A non-profit organization dedicated to providing early intervention and education services for young children with hearing loss. The clinic's mission is to offer support to families of children with hearing loss, emphasizing early diagnosis, parent education, and intervention services to facilitate the development of spoken language.

#### **Los Angeles**

2160 West Adams Blvd. Los Angeles, CA 90018

#### **Long Beach**

740 E Wardlow Rd. Long Beach, CA 90807

#### San Gabriel

207 S. Santa Anita St, #300 San Gabriel, CA 91776

**Phone:** 1-213-748-5481 **Email:** web@jtc.org

Website: <a href="https://www.jtc.org/">https://www.jtc.org/</a>



### **California Hands and Voices**

A parent-driven, non-profit organization providing families with the resources, networks, and information to improve communication access and educational outcomes for their children. California Hands & Voices is dedicated to supporting families with children who are Deaf or Hard of Hearing in a respectful and non-judgmental manner regarding language opportunities, communication tools or educational approaches.

15274 Andorra Way San Diego CA 92129

Email: info@CaHandsandVoices.org
Website: https://cahandsandvoices.org/

Professionals, refer a family here: <a href="https://cahandsandvoices.org/refer-a-family/">https://cahandsandvoices.org/refer-a-family/</a>

### **Deaf Access Program**

This program was established to ensure that public programs in the state are accessible and adapted to meet the needs of the deaf and hard of hearing children, adults and families, enabling them to achieve economic independence and fully participate in mainstream society.

Voice: (916) 653-8320 (Voice)

Videophone: (916) 330-3242 (Videophone)

Email: Deaf.Access@dss.ca.gov

Website: <a href="https://www.cdss.ca.gov/deaf-access">https://www.cdss.ca.gov/deaf-access</a>

### **Greater Los Angeles on Deafness Inc. (GLAD)**

A non-profit organization based in Los Angeles, California, that provides a range of services and advocacy for deaf and hard of hearing community.

2222 Laverna Ave Los Angeles CA 90041 Voice: 323-892-2225 Voice/TTY: 323-478-8000

Website: https://gladinc.org/



### California State University, Northridge (CSUN) Deaf Project

CSUN's Deaf Education And Families (DEAF) Project provides services and educational opportunities for families with Deaf or Hard of Hearing (DHH) children. Examples of services include:

- Empowerment activities
- Connections with local school districts and early start programs
- Support groups for parents and families
- Exposure to deaf role models
- Collaboration with community agencies and programs
- Respect for the cultural, linguistic, and socioeconomic needs of families and children.
- American Sign Language Classes.

18111 Nordhoff Street Northridge, CA 91330-8265

Phone/Voice Phone: (818) 677-4007

Email: deafproject@csun.edu

Website: https://www.csun.edu/deafproject/

### California School for the Deaf, Riverside

California School for the Deaf is a school that provides community, services, and education for children ages 3-12 years old who are Deaf/Hard of Hearing.

3044 Horace Street Riverside, CA 92506

Email: info@csdr-cde.ca.gov

Website: https://www.csdr-cde.ca.gov/

### **Marlton School**

Marlton School is a K-12 public school for Deaf/Hard of Hearing students in Los Angeles, California. It offers a bilingual program in ASL and English.

4000 Santo Tomas Dr Los Angeles, CA 90008 **Phone:** (323) 296-7680

Website: https://marltonschool.lausd.org/





Following knowledgeable advocates and professionals on social media can be very helpful. Below are social media accounts to follow!

Instagram: @ Listenwithlindsay

Instagram: @Audlatinx

Instagram: @mama.hu.hears

Instagram: @hearinghealthfoundation

Instagram: @MyBattleCall

# **National Resources**

### **National Center for Hearing Assessment & Management (NCHAM)**

Utah State University 2880 Old Main Hill Logan, UT 84322

E-mail: mail@infanthearing.org

Phone: (435) 797-3584

Website: www.infanthearing.org/states/.

### **Boys Town National Research Hospital**

555 N 30th St., Omaha, NE 68131 **Phone (Voice):** (402) 452-5000

Phone (Voice, Toll-free, 24hr): (800) 448-3000 Phone (TTY, Toll-free, 24hr): (800) 448-1833

**Website**: www.boystownhospital.org/Pages/default.aspx **Website**: www.babyhearing.org/parenting/parent-to-parent

### Alexander Graham Bell Association for the Deaf & Hard of Hearing

3417 Volta Place, NW, Washington, DC 20007

Phone (Voice): (202) 337-5220 Phone (TTY): (202) 337-5221 Website: www.agbell.org

### American Society for Deaf Children (ASDC)

3820 Hartzdale Drive, Camp Hill, PA 17011

Email: asdc@deafchildren.org

Phone (Voice Hotline, Toll-free): (800) 942-2732

Phone (Voice): 1-866-895-4206 Phone (Voice): (717) 703-0073 Website: www.deafchildren.org

# **Professional Organizations**

### American Academy of Audiology (AAA)

11730 Plaza America Drive, Suite 300

Reston, VA 20190

Phone (Voice, Toll-free): (800) AAA-2336

Phone (Voice): (703) 790-8466

Fax: (703) 790-8631

Website: www.audiology.org

### **American Academy of Otolaryngology — Head and Neck Surgery**

One Prince St.

Alexandria, VA 22314-3357

Email: info@entnet.org

Phone: (703) 836-4444

Website: www.entnet.org/

### **American Academy of Pediatrics (AAP)**

141 Northwest Point Boulevard Elk Grove Village, IL 60007-1098 (847) 434-4000 — (Voice)

Website: <a href="https://www.aap.org/">https://www.aap.org/</a>

http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Early-Hea

ring-Detection-and-Intervention.aspx

## **American Speech-Language-Hearing Association (ASHA)**

10801 Rockville Pike Rockville, MD 20852

Email: actioncenter@asha.org

**Phone:** (800) 638-8255 **Website:** <u>www.asha.org</u>



# Checklist for Supporting Families of Children With Hearing Loss



### **Early Detection and Diagnosis:**

important.

	<b>Newborn Hearing Screening:</b> Ensure your baby undergoes a newborn hearing screening after birth.			
	<b>Developmental Milestones:</b> Monitor and track your child's developmental milestones, including responsiveness to sounds.			
	Follow-up Auditory Evaluation: Schedule follow-up auditory evaluations if th are concerns if your child did not pass the initial hearing screening.			
Seekii	ng Professional Support:			
	<b>Consult Audiologist:</b> Schedule an appointment with an audiologist for a comprehensive hearing assessment.			
	<b>Pediatrician Consultation:</b> Discuss your concerns with your child's pediatrician and seek referrals to specialists if necessary.			
<b>Educa</b>	tional and Support Resources:			
	<b>Research Hearing Loss:</b> Educate yourself about the different types of types of hearing loss and available treatments.			
	<b>Explore Communication Options:</b> Investigate various communication options, including sign language, speech therapy, and hearing aids.			
	Connect with Support Groups: Join local or online support groups for parents of children with hearing loss.			
Assist	ive Technologies:			
	<b>Hearing Aids:</b> If recommended, discuss and explore the possibility of using hearing aids with the audiologist.			
۵	Cochlear Implant Evaluation: If applicable, consult with specialists about cochlear implant options.			
<b>Early</b>	intervention:			
	Enroll your child in early intervention programs to promote language and communication skills.			
Comr	nunication Strategies:			
	<b>Learning alternative communication modalities:</b> Consider learning supplemental or alternative communication modalities to facilitate language learning and communication.			
Regul	ar Monitoring:			
	<b>Regular Check-Ups:</b> Schedule regular check-up with healthcare professionals and specialists to monitor progress.			
Emoti	onal Well-being:			

Prioritize your own well-being and seek support if needed. Parenting a child with hearing loss can be challenging, and your mental and emotional health is

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# USC Caruso Department of Otolaryngology Head and Neck Surgery

USC Caruso Family Center for Childhood Communication

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