

Your Child's Hearing & Next Steps

This worksheet will help you to learn about your child's hearing loss and the various terms used to describe it. Your audiologist will indicate which apply to your child by marking the box for the respective ear next to each.

Threshold Symbols	Right	Left
Air Conduction	O	X
AC Masked	Δ	□
Bone Conduction	<	>
BC Masked	[]

Type of Testing

What was done to check your child's hearing?

Air conduction:

Uses headphones or speakers. This is the way we normally hear. Determines overall hearing ability.

Bone conduction:

Uses an oscillator on a headband placed behind the ear, and gently vibrates the skull. Determines inner ear hearing ability.

Masking:

Static-like noise played to the non-test ear. Keeps that ear busy while the other ear is tested.

Otoacoustic Emissions (OAE):

May be referred to as an "echo test." Measures function of outer hair cells in cochlea. Most children with normal OAEs have normal hearing.

Auditory Brainstem Response (ABR):

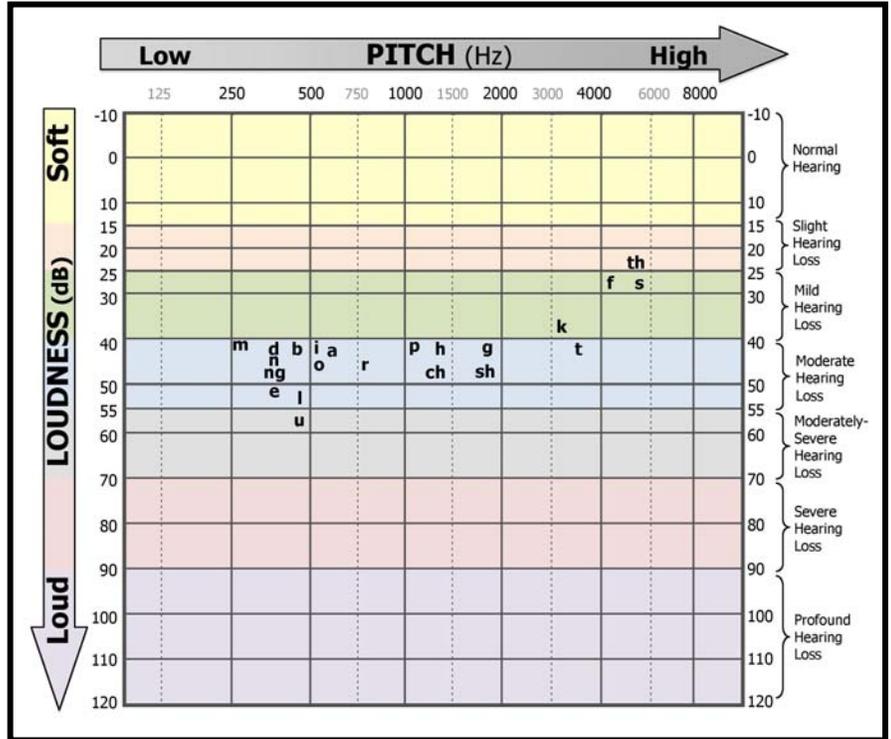
Provides estimate of hearing ability by recording brainstem's response to sounds played through earphones or bone oscillator.

Visual Reinforcement Audiometry (VRA):

Child is taught to look at moving toy or animation in response to sound or speech. Used primarily for children ages 6-24 months.

Conditioned Play Audiometry (CPA):

Child is taught to perform a task (putting a block in a bucket, completing a puzzle) each time they hear a sound or speech. Used primarily for children ages 36 months and older.



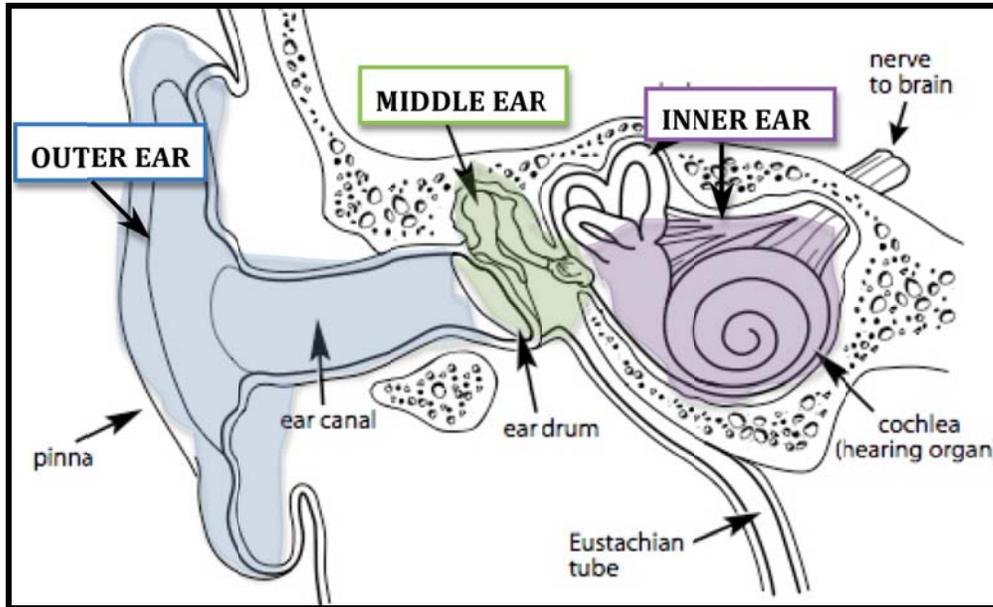
Degree of Hearing Loss

Is there a problem? How much of a problem?

Right / Left

- Normal hearing:** Very few hearing-related problems.
- Slight/mild hearing loss:** Soft sounds (faucet dripping, birds chirping, some speech) may not be heard. Sounds that are moderately loud to a normal hearing person, like speech, will be soft. Your child will have trouble hearing faint or distant speech, and may have trouble hearing in a noisy environment.
- Moderate hearing loss:** Most speech sounds may not be heard. Speech can only be understood if it is loud. Your child may have limitations in vocabulary, language comprehension, and language usage. Your child may make speech errors.
- Moderately severe hearing loss:** Clarity of speech is significantly reduced and the most difficulty will occur in groups and when listening in noise. Your child may have limitations in vocabulary, spoken language comprehension, and may make speech errors.
- Severe hearing loss:** Most speech sounds will not be understood, and other loud sounds (phone ringing, dog barking) may be missed. Sounds that are very loud to a normal hearing person will be very soft. Spoken language comprehension and speech will not develop spontaneously.
- Profound hearing loss:** Very loud sounds (airplane, lawn mower) will not be detected. Your child will rely on vision rather than hearing for primary communication. Speech will not develop spontaneously.

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OUTER EAR: *Pinna, ear canal*

Pinna helps funnel sound into the ear canal

MIDDLE EAR: *Eardrum, ossicles (malleus, incus, stapes), Eustachian tube*

Sound vibrates the eardrum and sets the three ossicles into motion. The footplate of the stapes pumps into and out of the cochlea.

The Eustachian tube keeps the middle ear space filled with air so the eardrum reacts to sound vibrations optimally.

INNER EAR:

Cochlea, auditory nerve, vestibular system

The stapes' motion vibrates fluid inside the cochlea. Tiny hair cells are stimulated, releasing chemicals that excite the auditory nerve which transmits the signal to the brain.

Type of Hearing Loss

Where is the problem? Is it temporary or permanent?

Right / Left

- Conductive Hearing Loss:**
 - Caused by problem in the outer or middle ear.
 - Typically due to fluid/ear infection, ear deformity, genetics, trauma, or surgery.
 - Often temporary or medically treatable.
 - If permanent, special hearing aids can help sound get to the inner ear.
- Sensorineural Hearing Loss:**
 - Caused by problem in the inner ear or central auditory system.
 - Can be a result of genetics, disease, noise or medications.
 - Typically permanent, and can be treated with hearing aids or a cochlear implant, depending on the degree of hearing loss.
- Mixed Hearing Loss:**
 - Both conductive and sensorineural hearing loss.
 - May be treated medically and/or with hearing aids.
- Auditory Neuropathy Spectrum Disorder (ANSD):**
 - Type of sensorineural hearing loss, but typically isolated to the auditory nerve.
 - Usually a result of genetics, prematurity, or NICU treatment.
 - Variability in performance with hearing aids and cochlear implants.

Next Steps

What do we do now?

- Schedule additional hearing testing.
- Schedule otolaryngology (ENT) appointment.
 - Medical clearance for hearing aids
 - Medical examination of ears
 - Etiology evaluation and referrals
- Contact child's insurance company to determine hearing aid benefit and requirements.
- Wait for phone call from Guide By Your Side.
- Respond to phone calls and letters from Early Intervention.
County:
- Review information in Family Resource Guide