

Everything You Always Wanted to Know About Hearing But Were Afraid To Ask

Please Call
866-842-5779
Enter Code
463 661 9330#

Can you name the smallest
bones in the body?

respond in the chat box—lower right corner



Deana



Christine



Patty



Ruth

WELCOME!



Phones Are Muted
Chat For Communication



HOUSEKEEPING



locate this button on bar **below slides**
click to view slides in full screen



Esc. Key to Return to Normal View

VIEW IN FULL SCREEN MODE



Did You Know?

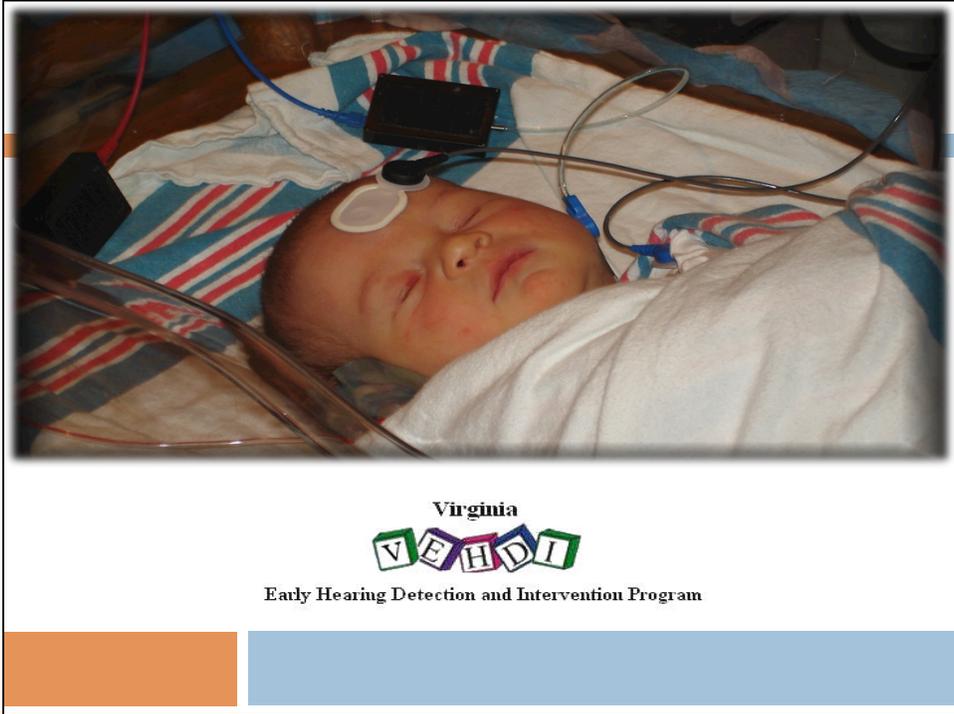
About 20% of babies with genetic hearing loss have a syndrome" (for example, Down syndrome or Usher syndrome).

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.

About one in every four children with hearing loss also is born weighing less than 2,500 grams (about 5½ pounds).

Nearly one-quarter of children with hearing loss has one or more other developmental disabilities, such as cerebral palsy, intellectual disability, or vision loss.

www.cdc.org



1-3-6 Methodology



All babies should have a hearing screening test before leaving the hospital, but no later than **1 month of age**.

Virginia data: 90%



If a baby fails the hearing screening—immediately schedule a hearing evaluation with an audiologist for a diagnosis before **3 months of age**. **Virginia data: less than 50%**



If a baby is diagnosed with a hearing loss, begin early intervention services before **6 months of age**.

Virginia data: 30%

Centers for Disease Control and Prevention (CDC) and Early Hearing Detection and Intervention (EHDI)

Early Intervention Survey Results

How familiar are you with the CDC EHDI 1-3-6 goals?

Very familiar 6% | Somewhat familiar 33% | Not at all familiar 57% | Not sure 3%

How often do you utilize VEHDIP as a resource for newborn hearing screening follow-up?

Often 7% | Sometimes 22% | Never 64% | Not sure 7%

In which of the following cases would an infant/child with hearing loss qualify for early intervention services through Part-C (Infant & Toddler Connection)?

Severe to Profound in both ears 33%	Mild to Moderate in both ears 30%
Severe to Profound in one ear 31%	Mild to Moderate in one ear 26%
Never 0.8%	Variable 9%
Hearing loss and a developmental delay 34%	Diagnosis of hearing loss 84%

Virginia Early Hearing Detection and Intervention Program (VEHDIP) & Early Intervention Partnership for Infants

Characteristic		Likelihood	Significance Level
Race of Mother:	Asian	Less likely	p < 0.0003
	Black	More likely	p < 0.0001
	White	Less likely	p < 0.0001
Ethnicity:	Hispanic Status	Not significant	p = 0.3
Insurance of Mother:	Medicaid	More likely	p < 0.0001
	Private Insurance	Less likely	p < 0.0001
	Self pay	More likely	p < 0.002
Education of Mother:	One or more years of college	Less likely	p < 0.0001
	High school diploma or less	More likely	p < 0.0001



Infants More Likely to be Lost to Follow-up

Survey

The 1-3-6 Methodology refers to:

- A. The latest fitness craze
- B. Goals for newborn hearing screening and follow up
- C. FAA requirements for carry-on liquids and gels
- D. None of the above

Type Your Answer in Chat



The 1-3-6 for the
EI Provider

Why Screen?

- The infant brain is ready and waiting for language!
- The first 6 months is the most critical time for brain development!



The 1-3-6 Rule

Goals to allow babies to take full advantage of benefits of Early Hearing Detection and Intervention:

- 1 Before one month of age: Hearing Screening
- 3 Before three months of age: Hearing Evaluation
- 6 Before six months of age: Early Intervention

How Do We Hear?

Outer Ear

Pinna , Ear canal

Middle Ear

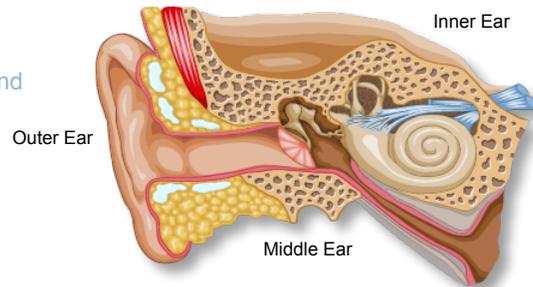
Tympanic membrane (ear drum),
Ossicular Chain (Malleus, Incus, and
Stapes), Oval window

Inner Ear

cochlea, outer and inner hair cells
semicircular canals

Brain

auditory nerve, brainstem, cortex



Survey

The last time I had to endure a discussion about the anatomy of the ear was:

- A.** Never, until today
- B.** Sometime in the last year or so
- C.** Once upon a time in school
- D.** The last time I had a hearing impaired client
- E.** Other (please describe)

Type Your Answer in Chat

1-3-6



Month 1

Screening

Month 1

Screening & Evaluation Are Not The Same



Screening: Assesses Risk
Evaluation: Confirms/Rule Out Hearing Loss

2 Types of Screening Tools

Otoacoustic Emissions (OAE)

Measures an “echo” response from the outer hair cells in the cochlea

Auditory Brainstem Response (ABR)

Electrodes measure a electricity from brainstem and hearing nerves



True or False?



A child who refers (or fails) a newborn hearing screening definitely has a confirmed hearing loss.

True or False

Type Your Answer in Chat

1-3-6



Evaluation

Month 3

The slide features a central graphic of a calendar page with the word 'Month' and a grid icon at the top, and the number '3' in a large font below. To the right of the calendar is the word 'Evaluation' in orange. The slide is framed by a blue horizontal bar at the top and bottom, with an orange vertical bar on the left side. The text '1-3-6' is in the top right corner, and 'Month 3' is in the bottom right corner.

Diagnostic Tests of Infant Hearing

- Otoacoustic Emissions
- Auditory Brainstem Response Testing
- Pure Tone “Booth” Testing
- Tympanometry

The slide has a title 'Diagnostic Tests of Infant Hearing' at the top. Below the title is a list of four diagnostic tests, each preceded by a small vertical bar (blue for the first and third items, orange for the second and fourth). The slide is framed by a blue horizontal bar at the top and bottom, with an orange vertical bar on the left side.

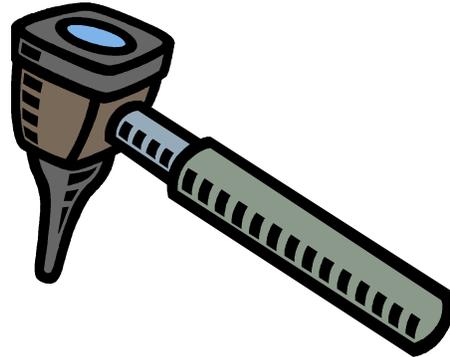
Types of Hearing Loss

Conductive

Sensorineural

Mixed

Auditory Dysynchrony



Are You Still With Us?

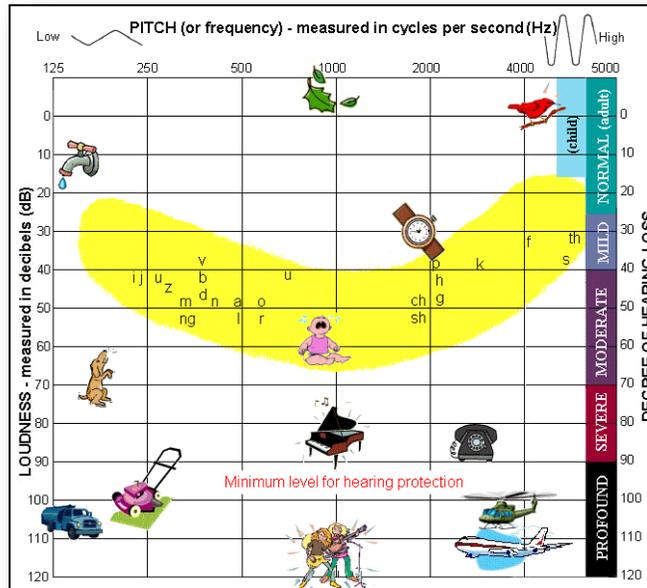
When a child has hearing loss that is caused from a middle ear not functioning properly, it is referred to as a _____ hearing loss.



Type Your Answer in Chat

Degrees of Hearing Loss

- Normal hearing 0-20 dB
- Mild hearing loss 20-40 dB
- Moderate hearing loss 40-60 dB
- Severe hearing loss 60-80 dB
- Profound hearing loss 80 dB +



1-3-6



Enrollment in
Early Intervention

Month 6

The slide features a calendar icon with the word 'Month' and a large number '6'. To the right of the icon, the text 'Enrollment in Early Intervention' is displayed in orange. The slide is framed by blue and orange horizontal bars. The top right corner contains the text '1-3-6', and the bottom right corner contains 'Month 6'.

Question

Is a child who has a diagnosis of hearing loss automatically eligible for Early Intervention Services in Virginia?

Type Your Answer in Chat

The slide has a blue header bar with the word 'Question' in white. Below the header, the question text is centered. At the bottom, there is a prompt 'Type Your Answer in Chat' in a light gray font.

Yes!

Under Part C in the Commonwealth of Virginia, a child with a diagnosis of hearing loss is automatically eligible for early intervention services.

- Congenital or Acquired
- Bilateral or Unilateral

Gather Information

- Most recent audiogram (compare to speech banana)
- Report from the Audiologist/ENT
- Determine the type of loss
 - Sensorineural? Conductive?
 - Bilateral? Unilateral?
 - Mild? Moderate? Severe? Profound?

Can You Guess?

According to research, what is the number one thing parents said they needed when they found out their child had a hearing loss?

Type Your Answer in Chat

Link to Support Programs



Guide By Your Side

<http://www.vahealth.org/hearing/gbys.htm>

Parent to Parent

<http://www.ptpofva.com>

Family-Professional Relationship

Your role is still important as you:

- Link the family to necessary local resources
- Help them sort through their options such as:
 - Amplification options
 - Communication options
- Assist in transition planning
- Help the family become advocates for their child

Amplification Options



Hearing Aids

Cochlear Implants

FM Systems

*most often used in
classroom or school
settings

Question

When you think about a child with hearing loss, what do you think the options are for them to learn to communicate?

Type Your Answer in Chat

Communication Options

- Often related to amplification option family has chosen.
- Need to offer a non biased overview of the options.
- Emphasize what works best for the family.

Communication Options

- Auditory Oral/ Auditory Verbal
- Sign Language
- ASL & Bilingual Approach
- Cued Speech
- Total Communication



Auditory Oral/Auditory Verbal

Relies solely on **spoken language** to listen and orally communicate.

Maximizing the hearing the child has to the highest extent for the development of **listening skills**.

No sign language or other visual communication devices are used.

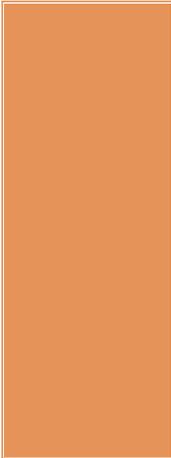
Parent/caregiver participation is critical.

Additional Things to Consider

For the child receiving A/V Therapy:

- Proper fitting of the hearing aid and/or CI is essential.
- With this option a deaf child could learn to communicate orally.
- Must start early.
- Focus is on listening, be aware of acoustics.

Hierarchy of Receptive Language

- 
- Detection
 - Discrimination
 - Identification
 - Comprehension

ASL-English & Bilingual Approach

- Child will be competent both linguistically and academically in both English and ASL.
- Provides a visual access to language prior to learning spoken and written English.
- Support for families is important if they are not fluent signers.
- The use of sign language can decrease frustration.

Cued Speech

- Hand movements supplement speech reading.
- Unlike ASL, each hand movement represents a speech sound.
- Every sound is cued clearly, showing exactly how to pronounce a word as it is spoken.
- Must watch the mouth and hand movements at the same time.
- Always used in conjunction with spoken language.

Cued Speech for American English
Visually providing the building blocks needed for communication, language development, and literacy.

/d, p, zh/	/ee, ur/
/k, TH, v, z/	/aw, e, ue/
/h, r, s/	/a, i, oo/
/b, n, wh/	consonant alone
/f, m, t/ vowel alone	1 st - 3 rd down /uh/
/l, sh, w/	1 st forward /ah, oe/
/g, j, th/	/ay, oi/
/ch, ng, y/	/ie, ou/

Cued Speech Hand Signs

Hand movements that comprise cued speech

Easy and simple to learn.

Do not need to be used exclusively.

Retrieved from: www.cuedspeech.org on June 2, 2011.

Total Communication

- Combines both oral and visual methods of communication.
- Allows for various components of each approach to be used as different times during the child's learning.
- Could be optimal for children with co-occurring disabilities.
- Can be adapted as child's skills change.

True or False?



The child should communicate using the methodology the provider is most comfortable with.

True or False

Type Your Answer in Chat

Final Thoughts

- Provide **unbiased** information.
- Information should be provided in the families **native language**.
- Keep in mind the **other areas** of development.
- Take advantaged of **resources** that are available to you and families.

Question and Answer



Type Your Questions in Chat