

Each day young children with unidentified hearing loss fall behind in language and learning.



How will we identify who they are to give them the help they need?



Permanent hearing loss is the most common birth defect in the U.S. Approximately 3 in every 1000 babies are born deaf or hard of hearing. In addition, hearing loss can occur at any time in a young child's life. By 6 years of age, about 6 in every 1000 children have significant hearing problems--often remaining undiagnosed, or misdiagnosed, for years.

Advances in technology now allow most newborns to receive an initial hearing screen shortly after birth. As a result, some babies receive essential hearing and language-learning help during their first months of life. The American Academy of Pediatrics (AAP) recommends periodic hearing screening throughout childhood because hearing affects language development, communication and learning. Unfortunately, few early childhood educators or health care providers are prepared to provide this so most children will not receive another objective screening until they enter school.

Head Start is leading the way with Performance Standards that require that a hearing screening be conducted within the first 45 days of enrollment in the program. The **Early Childhood Hearing Outreach (ECHO)** Initiative is helping early care and education providers across the country learn to provide evidence-based hearing screening to young children. (www.kidshearing.org)



Otoacoustic Emissions (OAE)

screening is the most appropriate method to identify young children at risk for permanent hearing loss because it is:

- ◆ **Accurate & feasible** -- does not require a behavioral response from the child, thus allowing us to screen children under three years of age or older children who cannot be screened with audiometry.
- ◆ **Quick & easy**—most children can be screened in just a minute or two.
- ◆ A **flexible tool** that can be used in a variety of environments.
- ◆ **Effective** in identifying children who may have a mild hearing loss, as well as those who have a severe, bilateral loss.



The screening is conducted with a portable hand-held unit. A small probe, fitted with a sensitive microphone, is placed in the child's ear canal. This probe delivers a low-volume sound stimulus into the ear.

The cochlea responds by producing an otoacoustic emission, which travels back through the middle ear to the ear canal. The response is analyzed by the screening unit.



In about 30 seconds, the result is displayed as a "pass" or "refer." Children not passing are referred to a health care provider to check for common ear problems. Those who still do not pass an OAE screening after medical clearance are referred to a pediatric audiologist for a complete evaluation.

Hearing Health Supports School Readiness



Most young children are not yet receiving the benefits of periodic hearing screening. They could potentially be screened by education and health care providers who are already committed to language development and school readiness. Training and technical assistance for professionals at the in-service and pre-service levels is needed in a variety of settings:

- ◆ Early Care & Education Programs
- ◆ Early Intervention Programs
- ◆ Health Care Clinics
- ◆ Home Visiting Programs

In the absence of objective, periodic screening, hearing loss is likely to remain an “invisible condition” either missed completely, or misdiagnosed. By integrating quality hearing screening into health services, early childhood programs contribute to positive language, cognitive and social-emotional development.



Periodic **hearing screening** throughout early childhood can contribute to:

- ◆ Baseline data documenting a child’s health over time. If developmental delays or other problems arise, a hearing screening history contributes to timely and accurate diagnosis and treatment.
- ◆ A complete description of a child, including abilities, strengths and challenges. A child’s relationship to the world of sound is an essential aspect of a developmental portrait. Hearing screening results should inform individualized learning and transition plans.



The **ECHO Initiative** helps education and health care providers implement evidence-based hearing screening and follow-up practices through:

- ◆ Program planning
- ◆ Web-based & on-site training
- ◆ Webinars
- ◆ Train-the-trainer workshops
- ◆ Online resources

www.kidshearing.org

References:

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Hearing Screening Program Development

1 Get Started & Implement

- ◆ Screening Methods
 - ◆ (OAE) Otoacoustic Emissions
 - ◆ Pure Tone

2 Use Screening Results to Promote School Readiness

3 Spread the Word



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