Evidence-based Hearing Screening for Infants and Young Children

echo INITIATIVE
Early Childhood Hearing Outreach
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 and even while a child is asleep.
- **Effective** in identifying children who may have a mild hearing loss, as well as those who have a severe, bilateral loss.

The procedure is performed with a portable hand-held screening 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, sometimes described as an echo, which travels back through the middle ear to the ear canal. The cochlear response is analyzed by the screening unit. In approximately 30 seconds, the result is displayed on the screening unit as a "pass" or "refer."

Children not passing are assessed by a health care provider for common ear problems. Children who still do not pass an OAE screening after medical clearance are referred to a pediatric audiologist for a complete evaluation.

NCHAM
National Center for Hearing Assessment and Management
Utah State University™

The Early Childhood Hearing Outreach (ECHO) Initiative

Since 2001, NCHAM's ECHO Initiative has been assisting early childhood education and health care providers incorporate OAE hearing screening into a variety of service settings. Young children who are deaf or hard of hearing are now being identified and served during the critical, language-learning years.

Learn more at **www.kidshearing.org** and join with us to expand the outreach!