School-based Audiology Advocacy Series
Hearing Screening

(Approved by the Board of Directors of the Educational Audiology Association September 2009)

Hearing Screening

In today's classrooms, typically 60% of instructional activity involves listening (ANSI S12.60-2002). The ability to hear is not only critical for instruction, but it also provides the foundation for the development of spoken language, and subsequently literacy, particularly the acquisition of phonemic skills. Consequently, children who have hearing loss need to be identified as early as possible so that appropriate measures to provide access to communication, language and learning can be implemented.

The Joint Committee on Infant Hearing (2007) recommends that the screening of all infants occur at birth but no later than one month of age, that the diagnosis of hearing loss be confirmed by three months of age, and that infants are enrolled in appropriate intervention programs by six months of age. Due to late onset and the progressive nature of hearing loss, hearing screening measures must continue routinely throughout toddler, preschool and school age years.

There are many factors that can cause a hearing loss, whether fluctuating or permanent, at any time during a child's life (Northern and Downs, 2002). During the early years there is a higher incidence of middle ear problems. As children become older their exposure to noise increases placing them at risk for noise induced hearing loss. Additionally, trauma, disease or other causes of later onset of hearing loss can occur at any time. Most states have guidelines on how, who and when hearing of school age children will be screened (Meinke and Dice, 2007). However, procedures, referral criteria, and follow-up procedures vary by state. Most often the responsibility for screening falls on the school nursing staff as a health procedure. Often screening is conducted by volunteers and training is brief, and supervision is limited. Adherence to test protocols can vary significantly.

Classroom teachers rely on the screening information to ensure that children hear adequately to access instruction and progress academically. Thus, when children do not develop age appropriate communication skills, do not acquire the basic phonemic skills to develop literacy, or do not make adequate general academic progress, there may be an assumption that the delays are due to reasons other than hearing ability. Therefore it is critical that the hearing screening process be performed in an efficacious manner. Instrumentation must be calibrated; training must be thorough; protocols must be developed appropriately for target age groups and followed carefully, and there must be a good understanding of the criteria for a "referral" to effectively provide follow-up.

Audiologists have unique clinical and academic backgrounds to support school personnel, provide expertise and training, and to manage hearing screening programs. Efficient, cost effective and successful programs managed by educational audiologists can ensure a screening process that correctly identifies all children at with auditory disorders and provided appropriate referral, intervention and management oversight.

References:

American National Standards Institute (2002). Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools [ANSIs12.60-2002]. New York: Acoustical Society of American.

Joint Committee on Infant Hearing (JCIH) (2007). Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs. *Pediatrics*. 120, 898-921.

Meinke, D.K. & Dice, N. (2007). Comparison of Audiometric Screening Criteria for the Identification of Noise-Induced Hearing Loss in Adolescents. The *American Journal of Audiology 16,* 190–202.

Northern, J. and Downs, M. (2002). *Hearing in Children*. Baltimore: Lippincott Williams & Wilkins.

This document is part of the School-Based Audiology Advocacy Series. Please see additional statements on School-based Audiology Services, Audiology Services Under 504, Auditory (Re)habilitation, Classroom Acoustics, Educational Audiology Services Under IDEA: Pertinent Regulations, Hearing Assistance Technology, Hearing Screening, Noise and Hearing Loss Prevention, Role in EHDI and On-Going Hearing Loss Surveillance in Young Children, and References and Resource Materials.