

Otoacoustic Emission (OAE) Screening

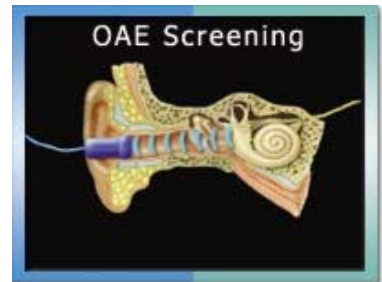
Otoacoustic emissions (OAE) hearing screening, used widely in hospital-based newborn hearing screening programs, represents a significant advance for screening young children. An objective method that screens hearing in a range of sound frequencies critical for normal speech and language development, portable OAE screening is the most practical method for screening infants and toddlers because it:

- Does not require a behavioral response from the child
- Can help to detect sensorineural hearing loss and call attention to hearing disorders affecting the pathway to the inner ear
- Is quick and painless
- Can be conducted by anyone who is trained to use the equipment and is skilled in working with children.



The OAE Screening Procedure

The procedure is performed with a portable handheld screening unit. A small probe 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," that travels back through the middle ear to the ear canal and is analyzed by the screening unit.



In approximately 30 seconds, the result is displayed on the screening unit as a "pass" or a "refer." Otoacoustic emissions (OAE) screening can help to detect sensorineural hearing loss occurring in the cochlea. It can also call attention to hearing disorders affecting the pathway to the inner ear.

Recommended Head Start OAE Screening and Follow-Up Protocol

1. An initial screening of both ears on every child (birth to three years of age).
2. Any ear not passing the initial (1st OAE) screening is screened again (2nd OAE) within approximately 2 weeks of the first screen.
3. If the ear does not pass the 2nd OAE screen, the child must be evaluated by a health care provider to determine whether there is an outer or middle ear condition (blockage, fluid, structural anomaly, etc.) interfering with accurate completion of the OAE screening. Treatment or monitoring may be needed.
4. Once the health care provider gives medical clearance, indicating that there are no conditions present that would impede an accurate screening, an OAE rescreen is conducted. If the ear does not pass the OAE rescreen, the child should be referred to a pediatric audiologist for a diagnostic evaluation. This referral is usually made by a health care provider in coordination with the Head Start program.

More information can be found at: www.infanthearing.org/earlychildhood