Medical Policy:
Otoacoustic Emissions Testing
(Commercial)

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<th>POLICY NUMBER</th>
<th>EFFECTIVE DATE</th>
<th>APPROVED BY</th>
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<tr>
<td>M20190009</td>
<td>9/01/2019</td>
<td>MPC (Medical Policy Committee)</td>
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**IMPORTANT NOTE ABOUT THIS MEDICAL POLICY:**

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**Guidelines:**

**OTOACOUSTIC EMISSIONS TESTING**

**Covered indications for 92558 (should be used for screening)**

- Neonatal hearing screening as a preventive service using otoacoustic emissions (OAEs) is proven and/or medically necessary for infants who are 90 days or younger.
- Evoked OAE is considered medically necessary to screen children 3 years of age and younger who did not have the initial neonatal screening and/or cannot be effectively measured or monitored through audiometry.
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Covered indications for 92587 and 92588 (diagnostic evaluations to confirm the presence or absence of hearing disorders):

- Infants over 90 days old and children up to 4 years of age
- Children and adults who are unable to cooperate with other methods of hearing testing (e.g., individuals with autism or stroke)
- Children with developmental or delayed speech or language disorders
- Individuals with tinnitus, acoustic trauma, noise induced hearing loss, or sudden hearing loss
- Individuals with abnormal auditory perception
- Individuals with sensorineural hearing loss
- Individuals with abnormal auditory function studies or failed hearing exam
- Individuals who may be feigning a hearing loss
- Monitoring of ototoxicity in individuals before, during, and after administration of agents known to be ototoxic (e.g., aminoglycosides, chemotherapy agents)

Limitations/Exclusions:

- Routine evoked OAE screening at a well-child visit is not considered medically necessary for children 3 years of age and younger who have passed the newborn hearing screen unless the child has a risk factor for hearing loss, has impairment of speech or auditory skills, or has an abnormal middle ear status.
- Comprehensive auditory evoked response testing and comprehensive otoacoustic emissions are considered experimental and investigational for initial screening because there is a lack of evidence of the value of comprehensive testing over the limited auditory evoked potentials or limited otoacoustic emissions for this indication.
- Auditory screening or diagnostic testing using otoacoustic emissions (OAEs) is unproven and/or not medically necessary for all other populations and conditions other than those listed as a covered indication

Applicable Coding

To access the codes, please download the policy to your computer, and click on the paperclip icon within the policy

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<th>Applicable CPT and Diagnosis Codes</th>
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Clinical Evidence:

Otoacoustic emissions testing evaluates the integrity of the inner ear (cochlea). In response to noise, vibrations of the hair cells in a healthy inner ear generate electrical responses, known as otoacoustic emissions. The absence of OAEs indicates that the inner ear is not responding appropriately to sound. Transient evoked otoacoustic emissions (TEOAEs) are generated in response to wide-band clicks, while distortion product otoacoustic emissions (DPOAEs) are a response to tones. Both stimuli are presented via a light-weight ear canal probe. A microphone picks up the signal, and multiple responses are averaged to get a specific repeatable waveform. Otoacoustic emissions are used in screening and diagnosis of hearing impairments in infants, and in young children and patients with cognitive impairments (e.g., mental retardation, dementia) who are unable to respond reliably to standard hearing tests. Otoacoustic emissions are also useful for evaluating patients with tinnitus, suspected malingering, and for monitoring cochlear damage from ototoxic drugs.
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Auditory screening or diagnostic testing using otoacoustic emissions (OAEs) is unproven and/or not medically necessary for all other populations and conditions other than those listed as proven and medically necessary. There is inadequate evidence that hearing screening with OAEs is superior to screening audiometry in improving health outcomes such as timely facilitation of speech, language, and communication skills in older children or adults. There is also inadequate evidence to indicate that the use of diagnostic otoacoustic emissions (OAEs) testing is superior to screening audiometry in improving health outcomes such as timely facilitation of speech, language, and communication skills in individuals with other conditions other than those indicated as proven and medically necessary.

Professional Societies:
U.S. Preventive Services Task Force (USPSTF)
The USPSTF recommends that newborn hearing screening programs include (USPSTF, 2014):
- A one-step or two-step validated protocol which frequently involves otoacoustic emissions (OAEs) followed by auditory brainstem response (ABR) in those who failed the first test;
- Protocols to ensure that infants with positive screening-test results receive appropriate audiologic evaluation and follow-up after discharge;
- Screening and follow-up should be in place for newborns delivered at home, birthing centers, or hospitals without hearing screening facilities; and
- Hearing screening before one month of age. Those infants who do not pass the newborn screening should undergo audiologic and medical evaluation before 3 months of age.

American Academy of Pediatrics (AAP)
In February 1999, the American Academy of Pediatrics endorsed the implementation of universal newborn hearing screening. (AAP, 1999)
In a clinical report for hearing assessment in infants and children, the AAP states that ABR and OAEs are tests of auditory pathway structural integrity but are not true tests of hearing. Even if ABR or OAE test results are normal, hearing cannot be definitively considered normal until a child is mature enough for a reliable behavioral audiogram to be obtained. Behavioral pure-tone audiometry remains the standard for hearing evaluation. According to the AAP, a failed infant hearing screening or a failed screening in an older child should always be confirmed by further testing. Audiologists may repeat the audiometric tests in a sound booth and using a variety of other tests. ABR can also be used for definitive testing of the auditory system. Diagnostic ABR is often the definitive test used by audiologists in children and infants who are unable to cooperate with other methods of hearing testing. A diagnostic ABR is usually performed under sedation or general anesthesia in children aged approximately 3 to 6 months and older. Diagnostic ABR provides information that is accurate enough to allow for therapeutic intervention. According to the AAP, the OAE test also does not assess the integrity of the neural transmission of sound from the eighth nerve to the brainstem and, therefore, will miss auditory neuropathy and other neuronal abnormalities. Infants with such abnormalities will have normal OAE test results but abnormal auditory brainstem response (ABR) test results. A failed OAE test only implies that a hearing loss of more than 30 to 40 dB may exist or that the middle-ear status is abnormal (Harlor, 2009). In a policy statement for the pediatrician’s role in the diagnosis and management of autistic spectrum disorder in children, the AAP states that any child who has language delays should be referred for an audiologic and a comprehensive speech and language evaluation. If the child is uncooperative, diagnostic otoacoustic emissions or sedated brainstem auditory evoked responses should be obtained. (AAP, 2001)
American Academy of Audiology (AAA)
The American Academy of Audiology (AAA, 2011) endorses the detection of hearing disorders in early childhood and school-aged populations using evidence-based hearing screening methods. OAEs are recommended for preschool and school age children for whom pure tone screening is not developmentally appropriate (ability levels less than 3 years).

References


Revision History:

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<td>4/2019</td>
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