

Oral Health Fact Sheet for Dental Professionals

Children with Hearing Impairment

Hearing loss is the complete or partial loss of ability to hear from one or both ears. Hearing loss may be due to interference with the mechanical reception or amplification of sound to the cochlea involving the ear canal, tympanic membrane, or ear ossicles. Hearing loss may also result from damage to the cochlea and the sensorineural elements (79%) including the auditory nerve and its connections in the brainstem. Hearing may be impaired from birth or may be acquired. (ICD 9 code 389.0)

Prevalence

- <1% permanent bilateral childhood hearing loss
- Increased prevalence in boys, African Americans and with age
- 30% of cases are associated with syndromes

Manifestations

Clinical

- Hearing impairment and difficulty with language/speech
- Social-emotional development and learning

Oral

- Mouth breathing leading to xerostomia
- Increased risk for dental caries
- Increased risk for periodontal infections

Other Potential Disorders/Concerns

- none

Management

Behavioral

- Assess speech, language ability, and degree of hearing impairment when taking child's complete medical history. The approach taken by the practitioner should be tailored to the individual. Degree and presentation of hearing impairment may vary significantly.
- Ask child and parent how they usually communicate (sign language, lip reading, hearing aid, note writing, or combination).
- Periodically confirm that you are understood throughout the appointment.
- Make visits as short as possible.

Lip readers:

- Face the patient while speaking, speak clearly and naturally, and make sure that your mask is removed while speaking and mouth is visible. It is preferable to be at the same level as the child.
- Gain the child's attention with a light touch or signal before beginning to speak.
- Communicate only when the patient is looking at you.
- Speak naturally, neither very quickly nor very slowly. Use of complete sentences is preferred over the use of single word directives.
- Avoid technical terms.
- Excessive chat-lip reading is tiring.
- Use written instructions and facial expressions to communicate.

Children with Hearing Impairment continued

Sign language:

- Look directly at the child and not the interpreter when talking.
- Speak slowly and clearly to the child—*not* in the third person about the patient.
- Facial expressions and gestures may be very helpful.

Hearing aids:

- Eliminate or minimize background noise (music, etc) during the conversation.
- Avoid sudden noises and putting your hands close to the hearing aid during treatment to avoid buzzing.
- The child may want to adjust or turn off the hearing aid during treatment; inform them [show] before you start to use dental equipment.

Remain within the child's visual field during treatment.

Use the Tell-Show-Do approach, especially when using vibrating equipment—hearing impaired children may be particularly afraid of the unknown. Watch the patient's expression. Make sure the child understands what the dental equipment is and what is going to happen.

Look for signs of physical abuse during the examination. Note findings in chart and report any suspected abuse to Child Protective Services, as required by law. Abuse is more common in children with developmental disabilities and often manifests in oral trauma.

Additional information: [Special Needs Fact Sheets for Providers and Caregivers](#)

References

- Champion, J., Holt, R. (2000) Dental care for children and young people who have a hearing impairment. *Br Dent J*, 189(3): 155-59.
- Alsmark SS, García J, Martínez MR, López NE (2007) Med Oral Patol Oral Cir Bucal. How to improve communication with deaf children in the dental clinic. Dec 1;12(8):E576-81.

Additional Resources

- [NIH Institute for Hearing Impaired](#)
- [Special Care: an Oral Health Professionals Guide to Serving Young Children with Special Health Care Needs](#)
- [Bright Futures Oral Health Pocket Guide](#)
- [American Academy of Pediatric Dentistry: 2011–2012 Definitions, Oral Health Policies and Clinical Guidelines](#)
- [MCH Resource Center](#)
- [ASTDD-Special Needs](#)
- [Block Oral Disease, MA](#)
- [NOHIC-NIDCR publications](#)
- Free of charge CDE courses: [MCH Oral Health CDE](#) (4 CDE hours); [NIDCR CDE](#) (2 CDE hours)