

Hearing Loss in Children

Most children experience mild hearing loss when fluid accumulates in the middle ear in response to allergies or colds. This hearing loss is temporary. In many children, perhaps one in ten, fluid stays in the middle ear because of ear infection. They don't hear as well as they should during the infections and sometimes have delays in talking. Much less common is the permanent kind of hearing loss that always endangers normal speech and language development. This difficulty varies from mild or partial to complete or total.

Although they can occur at any age, the most serious effects come from hearing losses that are present from birth or develop during infancy and the toddler years. Hearing loss during this time demands immediate attention, because it directly affects the child's ability to understand and produce spoken language. Even a temporary severe hearing loss during infancy or early in the preschool years can make it very difficult for the child to learn proper oral language.

Kinds of Hearing Loss

The two main kinds of hearing loss are *conductive hearing loss* and *sensorineural hearing loss* (also called nerve deafness).

When a child has a conductive hearing loss, there may be an abnormality in the structure of the outer ear canal or middle ear, or there may be fluid in the middle ear that interferes with the conduction of sound.

Sensorineural hearing loss is caused by an abnormality of the inner ear or the nerves that carry sound messages from the inner ear to the brain. The loss can be present at birth or occur shortly thereafter. If there is a family history of deafness, the cause is likely to be inherited (genetic). If the mother had rubella (German measles), cytomegalovirus (CMV) or another infectious illness that affects hearing during pregnancy, the fetus could have been infected and may lose hearing as a result. The problem also may be due to a malformation of the inner ear. The cause of severe sensorineural hearing loss is most often unknown. In such cases, the probability that the hearing loss is genetic is high even when no other family members are affected. Future brothers and sisters of the child have a greatly increased risk of also being hearing impaired.

Diagnosis of Hearing Loss

Hearing loss must be diagnosed as soon as possible so that the child isn't delayed in learning language, a process that begins the day she is born. If you and/or your pediatrician suspect that your child has a hearing loss, insist that a formal hearing evaluation be performed promptly. Although some family doctors, pediatricians and well-baby clinics can test for fluid in the middle ear, a common cause of hearing loss, they cannot measure hearing precisely. Your child should go to an audiologist who can perform this service. She also may be seen by an ear, nose and throat doctor (an otolaryngologist). If your child is under age 2 or uncooperative during her hearing examination, she may be given a test called brain-stem evoked-response audiometry. This allows the doctor to test your child's hearing without having to rely on her cooperation. This test may not be available in your immediate area, but the

consequences of undiagnosed hearing loss are so serious that your doctor may advise you to travel to where it can be done.

When to Call the Pediatrician for Hearing Loss

Following are the signs and symptoms that should make you suspect that your child has a hearing loss and alert you to call your pediatrician.

- Your child doesn't startle at loud noises by 1 month of age or turn to the source of a sound by 3 to 4 months of age.
- He doesn't notice you until he sees you.
- He concentrates on gurgles and other vibrating noises that he can feel, rather than experimenting with a wide variety of vowel sounds and consonants.
- Speech is delayed or hard to understand, or he doesn't say single words, such as dada or mama by 1 year of age.
- He doesn't always respond when called. (This usually is mistaken for inattention or resistance but could be the result of a partial hearing loss.)
- He seems to hear some sounds but not others. (Some hearing loss affects only high-pitched sounds; some children have hearing loss in only one ear.)
- He seems not only to hear poorly but also has trouble holding his head steady or is slow to sit or walk unsupported. (In some children with sensorineural hearing loss, the part of the inner ear that provides information about balance and movement of the head also is damaged.)

Excerpted from [*Caring for Baby and Young Child: Birth to Age 5*](#), Bantam 1999

© Copyright 2000 American Academy of Pediatrics