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## Distant Sounds

Hearing losses from simple ear infections may harm a child's development

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It is second only to the cold as the most common health problem in American preschool children: the ear infection.

It is also one of the most common causes of hearing loss in children.

An ear infection, or otitis media, is an inflammation in the middle ear. It often includes the buildup of fluid behind the eardrum which impedes the transmission of sound and causes hearing loss, according to "A Guide to Your Child's Hearing," from the Better Hearing Institute in Washington, D.C.

Normal hearing usually can be restored by treating the infection with antibiotics and, in some cases, surgery, says Dr. Frederick *Goll* III, a Las Vegas ear, nose and throat specialist. If the condition is left untreated for a long time or if a child suffers chronic infections, the ear may become permanently damaged.

The most common cause of ear infections is the obstruction of the eustachian tube, *Goll* says. This is the passage between the middle ear and the back of the throat. In children, the tube is short, wide and horizontal, making it easier for the tube to get blocked through conditions such as enlarged adenoids and infections.

Children usually start experiencing ear infections between the ages of 6 months and 1 year, *Goll* says. About two-thirds of American children get an ear infection during their first year of life, and by age 3, 50 percent of children have had at least three ear infections.

Most infections occur in the winter months when youngsters are getting colds and upper respiratory infections. Both can lead to fluid buildup in the middle ear.

Antibiotics will usually get rid of the infections. If the fluid does not disappear after several weeks or if a child is experiencing chronic ear infections, say three to four in six months, a doctor may recommend the placement of small tubes in the ear, *Goll* says. These tubes allow the ear to properly ventilate.

Giving normal hearing back to a child is vital, according to experts. It not only allows the

youngster to hear sounds that signal physical danger, it is also key to learning how to communicate.

The buildup of fluid caused by an ear infection, for example, usually causes a minimum 20 percent hearing loss, says David Anderson, a local clinical audiologist. It is like having foam earplugs in each ear. This loss is enough to make some words indiscernible and, therefore, impede a child's ability to learn language and speech. "It's great to be able to say that your child doesn't have a hearing loss but the earlier we can identify it the better," Anderson says.

The critical time for learning these skills is just after birth through age 4, says Holly Kaplan, director of audiology services for the American Speech-Language-Hearing Association, or ASHA. This is when children are learning words and their meanings. They are also learning the nuances of language such as being able to associate words with places and things, and combining words to create sentences.

Children learn language by watching and listening to their caretakers. If their hearing is muffled, words are not understood and mimicking does not take place, Kaplan says. Recent studies show that hearing loss can prevent a child's brain from developing specific neuro pathways that turn specific sounds into words.

The irony is that it's easier to detect a serious hearing loss than the milder problems associated with ear infections, says Bill Healey, chairman of the department of special education for the University of Nevada, Las Vegas. "There is more of a record of misdiagnosis that occurs when a child has hearing loss rather than deafness."

Ear infections are not always accompanied by pain or fever, and sometimes the language and speech deficits caused by chronic infections are not discovered until a child becomes school age.

It is critical, therefore, that parents watch their children for signs of otitis media, Healey says. These include: listless behavior, short attention span, misunderstanding directions, wanting the radio or television louder than usual, pulling at or scratching the ears and talking too loudly.

Infants can also show signs of hearing loss. Between the ages of 4 to 6 months, for example, they should be looking around for the source of new sounds such as a doorbell or a dog barking, according to information compiled by ASHA. Between the age of 7 months and 1 year, the child should be responding when his or her name is called.

If parents suspect a hearing problem, they should see an ear, nose and throat specialist with experience in treating children to determine any physical causes, such as an infection, Healey says. They should also take the child to a nationally certified audiologist to determine the degree of hearing loss and how it can be treated, experts recommended.

It is vital parents stay involved after the hearing loss is confirmed, Healey says. They provide the doctors and language experts with key information about how the child is progressing. If the child is school age, they must also work with the school district to determine an appropriate education strategy.

"It is absolutely critical that teachers understand the effects of a child's hearing loss and the child's ability to learn and perform in class," Healey says. "The teacher would be wise to talk with the child about what they can hear and how they can best get information in class."

Those concerned about their child's hearing can call ASHA at 301-897-5700 for more information. The Better Hearing Institute can be reached at 1-800-327-9355 or through the Internet at: [www.betterhearing.org](http://www.betterhearing.org).