



الشراكة الطلابية

مشروع التثقيف الصحي Health Education Project

Causes of Hearing Loss in Children



1. Otitis Media

Otitis media is an inflammation in the middle ear (the area behind the eardrum) that is usually associated with the buildup of fluid. The fluid may or may not be infected.

Acute otitis media

Is usually of rapid onset and short duration. Acute otitis media is typically associated with fluid accumulation in the middle ear together with signs or symptoms of ear infection; pain, perforated eardrum and drainage of pus, fever can be present.

Chronic otitis media

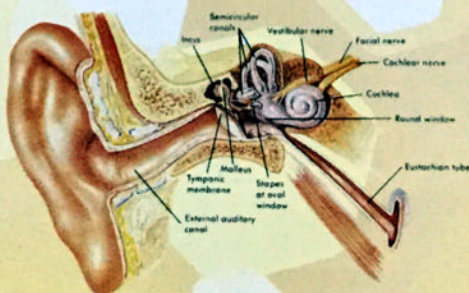
Is a persistent inflammation of the middle ear, typically for a minimum of a month. This is in distinction to an acute ear infection that usually lasts only several weeks. Following an acute infection, fluid may remain behind the ear drum (tympanic membrane) for up to three months before resolving. Chronic otitis media may develop after a prolonged period of time with fluid or negative pressure behind the eardrum. Chronic otitis media can cause ongoing damage to the middle ear and eardrum and there may be continuing drainage through a hole in the eardrum. Chronic otitis media often starts painlessly without fever. Ear pressure or popping can be persistent for months. Sometimes a subtle loss of hearing can be due to chronic otitis media.

Why is Otitis Media so Common in Children?

The eustachian tube, a passage between the middle ear and the back of the throat, is smaller and more nearly horizontal in children than in adults. Therefore, it can be more easily blocked by conditions such as large adenoids and infections. Until the eustachian tube changes in size and angle as the child grows, children are more susceptible to otitis media.

How Can Otitis Media Cause a Hearing Loss?

Three tiny bones in the middle ear carry sound vibrations from the eardrum to the inner ear. When fluid is present, the vibrations are not transmitted efficiently and sound energy is lost. The result may be mild or even moderate hearing loss. Therefore, speech sounds are muffled or inaudible. Generally, this type of hearing loss is conductive and is temporary. However when otitis media occurs over and over again, damage to the eardrum, the bones of the ear, or even the hearing nerve can occur and cause a permanent, sensorineural hearing loss.



Can Hearing Loss Due to Otitis Media Cause Speech and Language Problems?

Children learn speech and language from listening to other people talk. The first few years of life are especially critical for this development.

If a hearing loss exists, a child does not get the full benefit of language learning experiences. Otitis media without infection presents a special problem because symptoms of pain and fever are usually not present. Therefore, weeks and even months can go by before parents suspect a problem, which will affect the child's language development.

How Can I Tell if My Child Might have Otitis Media?

Even if there is no pain or fever, there are other signs you can look for that may indicate chronic or recurring fluid in the ear:

- Inattentiveness.
- Wanting the television or radio louder than usual.
- Misunderstanding directions.
- Listlessness.
- Unexplained irritability.
- Pulling or scratching at the ears.

2. Acquired Causes

Acquired hearing loss is a hearing loss which appears after birth, at any time in one's life, perhaps as a result of a disease, a condition, or an injury. The following are examples of conditions that can cause acquired hearing loss in children are:

Ear infections (otitis media) - Ototoxic (damaging to the auditory system) drugs - Meningitis - Measles - Encephalitis - Chicken pox - Influenza - Mumps - Head injury - Noise exposure.

3. Congenital Causes

The term congenital hearing loss implies that the hearing loss is present at birth. It can include hereditary hearing loss or hearing loss due to other factors present either in utero (prenatal) or at the time of birth.

Genetic factors are thought to cause more than 50% of all incidents of congenital hearing loss in children. Genetic hearing loss may be autosomal dominant, autosomal recessive, or X-linked (related to the sex chromosome).

Other Causes of Congenital Hearing Loss

That are not hereditary in nature include pre-natal infections, illnesses, toxins consumed by the mother during pregnancy or other conditions occurring at the time of birth or shortly thereafter.

These conditions typically cause sensorineural hearing loss ranging from mild to profound in degree. Examples include:

- Intrauterine infections including rubella (German measles), cytomegalovirus, and herpes simplex virus.
- Complications associated with the Rh factor in the blood.
- Prematurity.
- Maternal diabetes.
- Toxemia during pregnancy.
- Lack of oxygen (anoxia).

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