

American Speech-Language-Hearing Association

Effects of Hearing Loss on Development

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AUDIOLOGIST

It is well recognized that hearing is critical to speech and language development, communication, and learning. Children with listening difficulties due to hearing loss or auditory processing problems continue to be an underidentified and underserved population.

The earlier hearing loss occurs in a child's life, the more serious the effects on the child's development. Similarly, the earlier the problem is identified and intervention begun, the less serious the ultimate impact.

There are four major ways in which hearing loss affects children--

1. It causes delay in the development of receptive and expressive communication skills (speech and language).
2. The language deficit causes learning problems that result in reduced academic achievement.
3. Communication difficulties often lead to social isolation and poor self-concept.
4. It may have an impact on vocational choices.

Specific Effects

Vocabulary

- Vocabulary develops more slowly in children who have hearing loss.
- Children with hearing loss learn concrete words like *cat*, *jump*, *five*, and *red* more easily than abstract words like *before*, *after*, *equal to*, and *jealous*. They also have difficulty with function words like *the*, *an*, *are*, and *a*.
- The gap between the vocabulary of children with normal hearing and those with hearing loss widens with age. Children with hearing loss do not catch up without intervention.
- Children with hearing loss have difficulty understanding words with multiple meanings. For example, the word *bank* can mean the edge of a stream or a place where we put money.

Sentence Structure

- Children with hearing loss comprehend and produce shorter and simpler sentences than children with normal hearing.

- Children with hearing loss often have difficulty understanding and writing complex sentences, such as those with relative clauses ("The teacher whom I have for math was sick today.") or passive voice ("The ball was thrown by Mary.")
- Children with hearing loss often cannot hear word endings such as *-s* or *-ed*. This leads to misunderstandings and misuse of verb tense, pluralization, nonagreement of subject and verb, and possessives.

Speaking

- Children with hearing loss often cannot hear quiet speech sounds such as "s," "sh," "f," "t," and "k" and therefore do not include them in their speech. Thus, speech may be difficult to understand.
- Children with hearing loss may not hear their own voices when they speak. They may speak too loudly or not loud enough. They may have a speaking pitch that is too high. They may sound like they are mumbling because of poor stress, poor inflection, or poor rate of speaking.

Academic Achievement

- Children with hearing loss have difficulty with all areas of academic achievement, especially reading and mathematical concepts.
- Children with mild to moderate hearing losses, on average, achieve one to four grade levels lower than their peers with normal hearing, unless appropriate management occurs.
- Children with severe to profound hearing loss usually achieve skills no higher than the third- or fourth-grade level, unless appropriate educational intervention occurs early.
- The gap in academic achievement between children with normal hearing and those with hearing loss usually widens as they progress through school.
- The level of achievement is related to parental involvement and the quantity, quality, and timing of the support services children receive.

Social Functioning

- Children with severe to profound hearing losses often report feeling isolated, without friends, and unhappy in school, particularly when their socialization with other children with hearing loss is limited.
- These social problems appear to be more frequent in children with a mild or moderate hearing losses than in those with a severe to profound loss.

What You Can Do

Recent research indicates that children identified with a hearing loss who begin services early may be able to develop language (spoken and/or signed) on a par with their hearing peers. If a hearing loss is detected in

your child, early family-centered intervention is recommended to promote language (speech and/or signed depending on family choices) and cognitive development. An audiologist, as part of an interdisciplinary team of professionals, will evaluate your child and suggest the most appropriate audiologic intervention program.

To find an audiologist in your area, contact the American Speech-Language-Hearing Association (ASHA) by calling 800-638-8255 or use the Find a Professional service on ASHA's Web site (www.asha.org).

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