

Academy of Pediatrics, Joint Committee on Infant Hearing, 2007; Almadhoob and Ohlsson, 2015; Colella-Santos, Hein, de Souza, et al, 2014). In the United States, there are about 1 million children with hearing impairment ranging in age from birth to 21 years old, and almost one third of these children have other disabilities, such as visual or cognitive deficits.

Definition and Classification

Hearing impairment is a general term indicating disability that may range in severity from slight to profound hearing loss. *Slight to moderately severe hearing loss* describes a person who has residual hearing sufficient to enable successful processing of linguistic information through audition, generally with the use of a hearing aid. *Severe to profound hearing loss* describes a person whose hearing disability precludes successful processing of linguistic information through audition with or without a hearing aid. Hearing-impaired persons who are speech impaired tend not to have a physical speech defect other than that caused by the inability to hear.

Hearing defects may be classified according to etiology, pathology, or symptom severity. Each is important in terms of treatment, possible prevention, and rehabilitation.

Etiology

Hearing loss may be caused by a number of prenatal and postnatal conditions. These may include a family history of childhood hearing impairment, anatomic malformations of the head or neck, low birth weight, severe perinatal asphyxia, perinatal infection (cytomegalovirus, rubella, herpes, syphilis, toxoplasmosis, bacterial meningitis), maternal prenatal substance abuse, chronic ear infection, cerebral palsy, Down syndrome, prolonged neonatal oxygen supplementation or administration of ototoxic drugs (Colella-Santos, Hein, de Souza, et al, 2014; Grindle, 2014; Haddad, 2011; Jerry and Oghalai, 2011; Singh, 2015).

In addition, high-risk neonates who survive the once fatal prenatal or perinatal conditions may be susceptible to hearing loss from the disorder or its treatment. For example, sensorineural hearing loss may be a result of continuous humming noises or high noise levels associated with incubators, oxygen hoods, or intensive care units, especially when combined with the use of potentially