Deafness is a handicap which seriously impairs a child's ability to develop his potential and usually precludes a normal relationship between him and society. Hearing impairments developed in thousands of children during the rubella epidemic of the mid-sixties. The present struggle of these youngsters to acquire language highlights the impact of deafness. Therefore, the Committee's attention is focused on this disability, and the need to cite the physician's responsibility to the deaf child becomes paramount.

One child in 1,500 is born deaf. Many more acquire deafness after birth, and 3 children in 100 have impaired hearing. The normal acquisition of language depends on the auditory system; and the relationship between normal language development and one's capability to function in society is obvious.

There is some disagreement about when a hearing impairment should be classed as deafness; and many resort to a functional description based on the need of the child to be educated in a school for the deaf. For the purposes of this statement, a child can be considered deaf if his threshold of hearing across the speech frequencies (i.e., from 500 through 2,000 cycles per second) is depressed 80 db (ANSI) in the better ear.

The importance of documenting the presence of hearing in the growing infant cannot be stressed too strongly. It is equally important to recognize the implications of the absence of normal hearing in a child. The physician who renders primary health care to the child and cares for him from the bassinet to adulthood should assume this task (the type, the extent, and the cause of hearing loss should be determined by otolaryngologists and audiologists).

A variety of genetic and acquired abnormalities are associated with deafness; and children with certain disorders are at risk for hearing impairment (see Appendix).

The physician should be aware of the association of these disorders and deafness and insist on proper documentation of hearing in a child afflicted with any of them.

The physician must remain alert to the possibility of hearing impairment beyond the first year of life and to the disorders—such as infection and trauma—that can cause deafness in the growing youngster. Routine screening of hearing requires only simple, calibrated, noise-making toys in a quiet room; this screening can be accomplished by properly trained paramedical personnel.2,3

If hearing loss is suspected, the child should be referred for a thorough diagnostic evaluation. When the diagnosis is confirmed, a plan must be developed to meet the child's physical, psychological, and social needs. Every physician should acquaint himself with competent audiological services in his area. He should inquire at the Alexander Graham Bell Association for the Deaf, the American Speech and Hearing Association,† or other local services about services and facilities available to the deaf child. And he should see that the child receives immediate referral. Months, and sometimes years, slip by between referral and appropriate treatment. The physician rendering primary care should see that this time lag does not occur. His responsibility does not end with the referral.

Deafness in early childhood is one of the most serious limitations that can befall a child because it prevents his optimal development and adversely affects his relationship to the world in which he lives. The

* This statement has been reviewed and approved by the Council on Child Health, American Academy of Pediatrics.
physician has a prime responsibility to the deaf child; he must be aware of the disorder and its implications, as well as of a course of action to assure optimal management of the child. He should assume a leadership role and direct the program that leads from diagnosis through treatment to the optimal development of the child. Through patience, understanding, and commitment, the physician becomes a prime mover in the adaptation of the deaf child to our complex society.

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COMMON CAUSES OF DEAFNESS IN CHILDREN
I. Genetic
   A. Without associated disease
      1. autosomal recessive,
      2. autosomal dominant,
      3. sex linked.
   B. With associated disease
      1. retinitis pigmentosa,
      2. endocrine (Pendred's disease) or diabetes (mellitus juvenile),
      3. abnormal electrocardiogram,
      4. pigment abnormalities (Waardenburg's syndromes, albinism),
      5. chromosome abnormalities (D and E types),
      6. skeletal defects (Treacher Collins, Klippel Feil),
   7. connective tissue disorders (osteogenesis imperfecta, Hurler's syndrome),
   8. congenital malformations of eye, ear, mouth or kidney (Usher's Cockayne, cleft palate, micralia, abnormal pinnae, Alport's).
II. Acquired
   1. infection (rubella, measles, meningitis, mumps, etc.),
   2. ototoxic drugs (kenamycin, neomycine, dihydrostreptomycin),
   3. anoxia,
   4. hyperbilirubinemia,
   5. trauma.
THE PHYSICIAN AND THE DEAF CHILD

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