

# Children with cochlear implants have quality of life equal to normal hearing peers

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Children who have cochlear implants (CI) rank their quality of life (QOL) equal to their normally hearing (NH) peers, indicates new research in the February 2010 issue of *Otolaryngology - Head and Neck Surgery*.

A cochlear implant is an electronic device that restores partial hearing to the deaf. It is surgically implanted in the [inner ear](#) and activated by a device worn outside the ear. Unlike a hearing aid, it does not make sound louder or clearer. Instead, the device bypasses damaged parts of the [auditory system](#) and directly stimulates the hearing nerve, allowing deaf or severely hard of hearing individuals to receive sound. The National Institutes of Health estimate that as many as 59,000 people worldwide have received [cochlear implants](#), with roughly half of those in the pediatric population.

Prior research has indicated that [deaf children](#) feel less socially accepted, experience more difficulty in making friends, and demonstrate greater adjustment problems than their hearing peers. The subsequent success of the multi-channel CI devices that improve [speech perception](#) and [language development](#) led researchers to look beyond speech and language performance to questions of psycho-social behaviors and adjustment.

This cross-sectional study of 88 families with CI children from 16 U.S. states used a generic QOL questionnaire. The group was then divided by age of the child when they filled out the questionnaire: an 8-11-year-old

group and a 12-16-year-old group. Both parents and children were asked to fill out the QOL questionnaire, with the parents assessing their child. The study group was then compared to a control group of 1,501 NH children in fourth and eighth grades.

Results of the questionnaire revealed that overall QOL did not differ between CI and NH groups. However, examination of individual subscales revealed that 8-11-year-old CI children rate their QOL with family less positively than their NH peers. Younger CI recipients rated overall QOL more positively than the older 12-16-year-old CI group. However, the authors point out that this could be a reflection of standard adolescent behavior. Overall QOL showed a significant inverse association with age at implantation, and a significant positive correlation with duration of CI use in the 12-16-year-old group.

The authors point out that even though prior studies have assessed QOL in CI children, this study adds additional perspective to the literature, as it combines assessments by the actual CI recipients and parents, and it maps the results in context with NH children. In addition to findings about how CI children rank their QOL, the research reveals that parents proved to be reliable reporters for their children in areas where they could observe and participate.

The authors write, "For profoundly deaf children who regularly use a cochlear implant, feelings about life overall are no better or worse than their hearing peers. These findings indicate that cochlear implantation has a positive effect on certain psycho-social domains."

Provided by American Academy of Otolaryngology -- Head and Neck Surgery

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