

Bone-anchored hearing aids appear beneficial for hearing-impaired children

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Bone-anchored hearing aids appear helpful in improving hearing and quality of life in children with hearing loss in one or both ears, according to a report in the February issue of *Archives of Otolaryngology – Head & Neck Surgery*.

"Since its introduction more than 30 years ago, the bone-anchored hearing aid (BAHA) has become an established treatment option for auditory rehabilitation in patients with chronic conductive or mixed hearing loss," the authors write as background information in the article. Although the BAHA was most commonly fitted in adults when it was first introduced, it has gradually become a popular option for children with bilateral conductive hearing loss who are too young to undergo alternative surgical options.

Maarten J. F. de Wolf, M.D., and colleagues at the Radboud University Nijmegen Medical Centre, Nijmegen, the Netherlands, obtained information about 31 children who were current BAHA users. Data were collected through questionnaires answered by the children and their parents. Eligible children were a minimum of 4 years old at the time of BAHA fitting, and had been using the device for one to four years. Patients with both bilateral hearing loss (16 children) and unilateral hearing loss (15 children) were evaluated.

Questionnaires were composed of four parts measuring the child's daily use of the BAHA, health-related quality of life immediately following the BAHA fitting, auditory functioning and overall quality of life after

using the device over a period of time. In the bilateral hearing loss group, 13 children (81 percent) were using the BAHA for more than eight hours a day, and 12 (75 percent) reported that it was worth the effort. In the unilateral hearing loss group, seven (47 percent) were using their BAHA for more than eight hours a day and six (40 percent) were using it between four and eight hours a day. Ten children (67 percent) in this group felt the device was worth the effort.

In both subgroups, a younger age at the time of the BAHA fitting was associated with greater benefit and a higher quality of life after continued use. Additionally, the BAHA was found to have a large benefit on learning, particularly in the bilateral hearing loss group, underscoring the potential benefit of the device for the education of hearing-impaired children. Although this same benefit was seen in the unilateral hearing loss group, the authors recommend that use of the BAHA in this group, "should be made on an individual basis with the aid of a trial period of at least two weeks, which allows the child to use the BAHA in a variety of settings, particularly the school environment."

"Overall, BAHA fitting can be considered effective and beneficial in [children](#) with bilateral or unilateral [hearing loss](#)," the authors conclude. "...the BAHA was particularly beneficial for a child's learning, which may be largely due to its beneficial effects in noisy surroundings."

More information: *Arch Otolaryngol Head Neck Surg.*
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