

## Music supports the auditory skills of hearingimpaired children

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Researchers at University of Helsinki, Finland, and University College London have found evidence that children with hearing impairment and cochlear implants can benefit from hobbies involving music and



especially singing. The results, published in *Music Perception*, show that the auditory skills of hearing impaired children are connected to the amount of singing and music in their everyday lives.

In the study, Ritva Torppa, Ph.D., from University of Helsinki measured auditory skills, perception of speech in noise, singing skills, and brain responses to changes in musical sounds in children with cochlear implants. Some children took part in regular singing and other musical activities while others did not. "Hearing impaired children with cochlear implants who sing regularly have better perception of speech in noise compared to children who don't sing. This is an important skill in day care or school where children discuss and receive instructions in noisy conditions," Torppa says.

She stresses the importance of the result for the children's future. "Communication skills and especially the ability to perceive speech in noise have a vital importance in education. All children, but especially children with a <a href="hearing impairment">hearing impairment</a>, should have the possibility to learn music and especially singing."

The results also imply that parental singing is important. Together with the Lindfors foundation, Torppa has been involved in the development of speech-music play school activities where hearing-impaired children, their parents, and their siblings learn to use music in everyday life in a way that specifically develops language and <u>communication skills</u>.

University of Helsinki's Professor of Educational Sciences Minna Huotilainen, who supervised the research, thinks that musical hobbies are important but not available to all. "We have amazingly high-quality children's music culture in Finland with a wide variety of different musical hobbies. Speech-music play schools are not available everywhere yet but hearing-impaired children can also benefit from traditional Finnish musical play school and music-making and singing at



home," Huotilainen says.

She thinks that the result should be taken into account also in day-care and schools. "In my opinion, the best option is that day-care and school use music and singing every day as a means to support learning. This gives all <u>children</u> the possibility to enjoy music, singing, and the benefits they bring."

**More information:** Ritva Torppa et al, Developmental Links Between Speech Perception in Noise, Singing, and Cortical Processing of Music in Children with Cochlear Implants, *Music Perception: An Interdisciplinary Journal* (2018). DOI: 10.1525/MP.2018.36.2.156

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