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Binaural function and its benefits for wearers of hearing aids

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Hearing-aid design has been predicated traditionally on improving the reception of speech in background noise, a goal that has, at least in part, been successfully attained. Despite the advances, hearing-aid wearers continue to have difficulty in complex acoustic environments and in auditory tasks where normal-hearing listeners benefit greatly from binaural hearing. In order to improve hearing-aid wearers' performance in such challenging conditions, recent research has begun examining the effects of hearing aids on binaural perception. Interest in the topic is heightened by the rapidly approaching prospect of bilateral hearing aids that communicate wirelessly and thereby allow implementation of more complex signal-processing algorithms than currently possible.

This talk will review binaural function and its benefits, with particular emphasis on the aspects that hearing aids can affect. The talk will also speculate on which hearing-aid algorithms can affect binaural perception.