

Cochlear implants aid speech recognition in most adults

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(HealthDay)—Most adult patients have statistically significant

postoperative improvements in speech recognition after receiving cochlear implants, according to a study published online Jan. 7 in *JAMA Otolaryngology-Head & Neck Surgery*.

James R. Dornhoffer, M.D., from the Medical University of South Carolina in Charleston, and colleagues assessed changes in preoperative aided versus postoperative [speech recognition](#) scores for individual patients receiving [cochlear implants](#) among 323 adults (mean age, 61.2 years) with bilateral sensorineural hearing loss (470 implants).

The researchers found that most patients had statistically significant improvement in all speech [recognition](#) tests postoperatively beyond measurement error, including word recognition (84.8 percent), sentence recognition (87.6 percent), and sentence recognition in noise (78.6 percent). A small number of patients had equivalent preoperative and postoperative scores, while four patients had significantly poorer scores in sentence recognition after implantation. The associations between age at implantation and change in speech recognition scores were: word recognition, -0.12 [95 percent confidence interval, -0.23 to -0.01]; sentence recognition, -0.22 [95 percent confidence interval, -0.34 to -0.10]; and sentence recognition in noise, -0.10 [95 percent confidence interval, -0.39 to 0.21]. Patients with no significant improvement were distributed across all preoperative aided speech scores for word recognition and sentence recognition testing.

"Individual cochlear implantation outcomes with respect to preoperative aided speech recognition appear to be largely beneficial but subject to a large degree of variability," the authors write.

One author disclosed serving on the advisory board of Envoy Medical.

More information: [Abstract/Full Text](#)

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