

Cochlear Implantation Increases Meningitis Risk

Main Category: Infectious Diseases / Bacteria / Viruses News

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Confirming what physicians have long speculated, a new study published in the April edition of *Otolaryngology-Head and Neck Surgery* determines that the presence of cochlear implants increases the risk of bacterial infections that can cause meningitis in recipients.

The discovery increases the need to educate the public on the need for meningitis vaccinations in potential cochlear implant recipients.

The study involved making cochleostomy incisions (opening of the inner ear spaces of the cochlea the most important moment in the procedure) in the ears of 54 healthy rats, implanting cochlear devices in 36 of them, and then monitoring them for the presence of meningitis, a third of the rats with cochlear implants were stricken with meningitis. The study's authors found that in these cases, cochlear implantation lowers the threshold needed for pneumococcal bacterial infection, the bacterium that causes meningitis.

The study's authors stress that it remains their belief that the benefits of cochlear implants far exceed the risk of meningitis, which can be managed by education and vaccination efforts.

Worldwide, 90 of the 60,000 people receiving cochlear implant have been stricken with meningitis, drawing deep concern within the international medical community. Previous research by the Centers for Disease Control and Prevention determined that children who receive cochlear implants to counter hearing loss are more likely to develop meningitis.

Otolaryngolog Head and Neck Surgery is the official scientific journal of the American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS). The study's authors are Benjamin P. C. Wei, MD, PhD; Robert K. Shepherd, PhD; Roy M. Robins-Browne, MB, PhD; Graeme M. Clark, FRCS, PhD; and Stephen J. O'Leary, FRACS, PhD. They are associated with the University of Melbourne's Royal Victorian Eye and Ear Hospital in Melbourne, Australia.

The study is the recipient of the Academy's 2006 Resident Research Award in the Basic Science Category.

About the AAO-HNS

The American Academy of Otolaryngology Head and Neck Surgery (<http://www.entnet.org/>), one of the oldest medical associations in the nation, represents more than 12,000 physicians and allied health professionals who specialize in the diagnosis and treatment of disorders of the ears, nose, throat, and related structures of the head and neck. The Academy serves its members by facilitating the advancement of the science and art of medicine related to otolaryngology and by representing the specialty in governmental and socioeconomic issues. The organization's mission: "Working for the Best Ear, Nose, and Throat Care."

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