

Study finds not all hearing aids are created equal

Michigan State University research finds that consumers who buy over-the-counter hearing aids may be disappointed or, at worst, taking risks

Consumers with hearing loss might think they are saving significantly more by purchasing over-the-counter hearing aids, but they most likely will be disappointed - or could be taking risks - when purchasing such aids, according to MSU research.

Professor Jerry Punch of the Department of Communicative Sciences and Disorders and Susanna Love Callaway, a lifelong education alumna and international student from Denmark, published their study on over-the-counter hearing aids in a recent issue of the American Journal of Audiology.

Through her work as a student in Punch's two online courses, Callaway began to wonder about the high cost variability of hearing aids and asked Punch to advise her on a potential project. Specifically, do hearing aids have to be expensive to work from a purely technical standpoint? Punch and Callaway set out to find the answer by subjecting 11 over-the-counter hearing aids to the same test protocol as traditional hearing aids.

Most consumers do not have or have only partial insurance coverage for hearing aids, leading to out-of-pocket expenses ranging from hundreds to thousands of dollars. Low-cost options are typically marketed on the Internet and in mail-order magazines as listening devices - often for bird watchers or deer hunters.

"These low-cost amplifying devices can look tempting to individuals with hearing impairment because of the significant cost differences," Punch said. "But our research found that the low-cost aids generally don't meet the fitting requirements to help a hearing-impaired person and could potentially damage a person's hearing."

The research is important to consumers, Callaway said. "Aside from being of extremely poor quality, very low-cost hearing aids - those under \$100 - have the potential to damage your hearing because they send very loud sounds into the ear. The study's mid-range hearing aids (\$100-500) were of higher quality and were not considered a safety hazard."

The authors state in their article that aids costing \$100 to \$500 often control the amount of sound sent into the ear better, but without a precise and knowledge-based fitting of the device by an audiologist, consumers can expect to experience hit-or-miss success, Punch said. "Based on the research, the best advice for

consumers is to talk to an audiologist. Because hearing aids have complex technical features, they need to be fitted and customized to the individual."

The study measured how well the electronic features of the devices could compensate for commonly occurring types of hearing loss, employing methods that audiologists use to fit conventional hearing aids - a process audiologists call prescriptive fitting. Specifically, the researchers found that only a few of the aids they studied met the basic fitting requirements, and, for the few that did, that was true only for a specific degree of hearing loss.

"Currently, more than 32 million people have a hearing impairment, yet only about 25 percent of those use hearing aids," Punch said. "Meanwhile, the aging population is growing - and hearing loss becomes more common as we become older."

Although the Food and Drug Administration officially regulates hearing aids, those regulations are not enforced for low-cost amplifying devices that are sold through mail order and on the Internet, Punch said. He thinks that people with hearing loss should have more information about these devices.

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Callaway is first author on the paper, which was part of her master's thesis for her degree in audiology at the University of Copenhagen. She is currently completing the requirements for a doctorate degree at Western Michigan University.