Test new hearing aids in 'virtual sound room'

August 21 2015

Holly Smith recently tested new hearing aids at a cocktail party, a noisy restaurant and a concert venue—all without leaving the comfort of her audiologist's office.

In reality, Smith was sitting in the new virtual sound room at the Center for Audiology, Speech, Language, and Learning at Northwestern University's School of Communication.

Recently installed inside a new state-of-the-art facility with an indoor garage, the "Audio Environment Simulation Room" lets clients try hearing devices in different soundscapes so that fittings can be fine-tuned and specialized. Hearing aid wearers also can practice communicating in a wide range of environments and noise levels.

As a special summer promotion, visitors who schedule an appointment by Aug. 31 pay what they like, whether they choose to pay nothing or to pay it forward.

"Hearing aids are often fit and adjusted in the relative silence of an office," said Smith's audiologist, Tracy Hagan. "But that environment can't replicate the challenges a patient will face in the real world."

The simulation room resembles a recording studio and is wired with 38 microphones and 16 speakers. Audiologists can recreate a classroom setting for children or a reverberating concert hall for music lovers. Smith, for example, heard how a friend's voice might change in a restaurant that is gradually getting busier or at a subway platform as a
"People often wonder whether they can still enjoy music when wearing hearing aids or how the hearing aid will process the music," said audiologist Natalie Lenzen, a clinical supervisor in the Center for Audiology, Speech, Language and Learning.

"Once inside the room, clients have a little 'wow' moment after they hear how the hearing aids sound in real life situations," Lenzen said. "It's very beneficial because it helps with expectations. The room is also used to make adjustments to the hearing aids if they aren't working in certain environments."

Hearing aids have changed dramatically over the past decade and can process faster than ever. Small, discreet and often Bluetooth-enabled, the new generation of devices can connect wirelessly with smartphones, making it possible to hear a phone conversation directly through a hearing aid. "It's one of the best things about my hearing aids," Smith said. "Music is piped directly into my ears while I'm working out or doing yard work."

Approximately 38 million American adults suffer from hearing loss. Of those who could benefit from hearing aids, only one in five actually buy them, said Hagan, a clinical audiologist who instructs students. "People know they have hearing loss for about seven years before they see an audiologist; this can dramatically affect quality of life," Hagan said.

Because hearing loss poses communication issues, the Center for Audiology, Speech, Language and Learning also holds aural rehabilitation classes to help families cope. Patients are encouraged to bring loved ones or friends to classes on such topics as how hearing and hearing loss affects communication, strategies to cope with the social and emotional impact of hearing loss and the advantages and limitations
of hearing aids and other devices.

Smith, who lost some hearing in 1989 after a too-loud Bruce Springsteen concert, reluctantly tried hearing aids 18 years ago. She credits the devices, along with the Center for Audiology, Speech, Language, and Learning, with changing her life.

"I was surprised at how much energy I used just trying to hear," said Smith, 63, a therapist. "The biggest challenge was getting used to wearing them because at first it feels like there's something in your ear. But once I got over that, it was a piece of cake."

Smith also still loves attending concerts. Just hours after testing the new hearing aids at Northwestern, she saw Lady Gaga and Tony Bennett in concert. Now when things get loud, she swaps out her hearing aids for earplugs. "I've learned my lesson," she said.

Provided by Northwestern University

Citation: Test new hearing aids in 'virtual sound room' (2015, August 21) retrieved 30 July 2023 from https://medicalxpress.com/news/2015-08-aids-virtual-room.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.