

## The New In Hearing Aids

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Brain hearing? Machine Learning? Programming that instantly assesses hearing environments? Because the warranty on my hearing aids was expiring, I had asked my audiologist what was new in hearing aid technology, and now, he was peaking my interest with talk of hearing aids equipped with artificial intelligence. Could these futuristic-sounding aids be my hearing answer?

I needed to know more and asked for a definition of A.I.. My audiologist explained that artificial intelligence uses complex algorithms to evaluate external sound from a 3-D orientation while internal microchips discern between a human voice and background noise. Using your audiogram, these aids adjust a speaker's voice to your hearing needs. The aids remember hearing environments. So when walking into a previously visited restaurant, your hearing aids instantly adjust.

Because of power needs, aids with A.I. have a built-in zinc air or lithium ion battery and are rechargeable. A three to six hour charge provides 17 hours of usage. All are Bluetooth-enabled, are Made-for-IPhone, and have a telecoil. All hearing aid manufacturers have aids with artificial intelligence. You can choose from Oticon S, Starkey Livio Edge, Resound 3D, Siemens Xperience, Phonak Marvel 2.0, or the Widex Evoke. Mini mics and television adaptors can be purchased. Some have FM systems. Starkey's Livio Edge has a Thrive app, which records your blood pressure and heart rate and how far you walk daily.

After discovering my current manufacturer, Oticon, was providing a free 30-day trial of their S series, I placed an order. Over the next few days, I found myself immersed in a plethora of unfamiliar sound. I repeatedly asked my husband, "What's that noise," "It's the dishwasher, the washing machine, the ceiling fan," he would say. The swishes, the whirs, the grinds of motors, noises that I had never before heard, awed me.

A few days later, my husband and I ventured out to a noisy restaurant, one where I normally struggle to hear. A mini microphone that had come free with the trial of my aids, helped me to easily hear my husband. The usual exhaustion after such a night out was not there.

After a second adjustment, female voices began sounding clearer. But just in time for my third fitting, coronavirus hit our state and we decided to shelter at home. I called my audiologist to cancel my appointment. He phoned back saying he could do the fitting remotely.

After downloading Oticon's free App, my audiologist and I met, Facetime style. He made the third adjustment, easily and securely. Since nightspots had closed, he encouraged me to create artificial background noise with music and my television. Keep wearing your hearing aids in as much noise as possible, he said. They will learn to hear with you.

My audiologist believes that in the future, all aids and cochlear implants will have brain-hearing technology and artificial intelligence, producing better sound quality as one moves from noise to quiet. Currently cochlear implant manufacturers have devices with A.I. in clinical trials. It will not be long before C.I. users can experience the wonders of artificial intelligence.

Hearing is an important part of one's health. Studies have shown that untreated hearing loss can lead to dementia, Alzheimer's disease, and depression. As I meander through this changing hearing world, I am grateful for such innovative technology that will give all, suffering from hearing loss, a chance to experience life on a new auditory level.