Get in the loop – the hearing loop

Written by Dr. Stephanie Long, Audiologist

When a person has changes in their hearing, even small changes, listening to programs at the Fox Cities Performing Arts Center *(PAC)* or at religious services can be challenging.

While these locations utilize microphones to ensure the performers or speakers are heard, it is not always enough, especially for those who use hearing devices to improve their hearing.

At the PAC or a place of worship, the person who is speaking may be far away from the microphones, there might be excessive background noise or maybe even poor acoustics like echoing. These factors make it difficult for many people in the audience to hear well. It is important to point out that this problem can arise even when a person has good hearing aids that work well for them in other situations. This is simply a problem of the physics of sound.

That leaves people wondering: What is a solution? Many facilities, such as the PAC, provide a loop system, commonly known as a hearing loop, to make listening less challenging. A hearing loop works in conjunction with the facility's existing sound system, adding an induction loop, which is a wire that is placed around a perimeter of a room. This loop sends out a magnetic signal to hearing aids or cochlear implants that are enabled to receive it. The hearing device will pick up this signal and process it through the hearing aid as long as the hearing aid is equipped with a T-coil *(or tele-coil)*. This means the person wearing the hearing aid hears what was said directly into the microphone, and the sound is processed by the hearing aids and adjusted for their hearing loss so it is heard as intended.

In most cases, the program in the user's hearing device can be adjusted independently of the *"regular"* hearing aid program, allowing the user greater control. Switching between programs is as simple as changing the channel on a television. This can usually be accomplished by adjusting the hearing aid directly, or with a remote control for even easier access.

Personal systems are also available for home use to make watching television less challenging for the user of the system, as well as for those around them. I recently saw a chair system that plugs into the back of the TV and connects to a pad that is placed under the user's chair. This simple, yet inexpensive solution can be installed at home without remodeling. A possible downside to this solution would be that only one person can use the loop at a time, and the cords could potentially get in the way.

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About Better Care Audiology

Using a loop isn't limited to those who use hearing devices. For those people who are not interested in hearing aid technology at this time, other options do exist. One such solution is the Comfort Audio Duett. This rechargeable device can be used with ear buds. By placing the ear bud in your ear and turning the Duett to the loop setting, the Duett can receive any loop signal that a hearing aid can. The Duett does not have the frequency shaping or the sophistication of modern hearing aid technology, but it can fill a need for those who require support in some settings. For example, those with auditory processing problems.

Hearing loop technology is sometimes confused with Bluetooth technology. Bluetooth technology is another way hearing aids can seamlessly connect and cut through background noise. These devices work best with one speaker, or when connecting to a smart phone, iPad or any device that is equipped with a Bluetooth setting. These devices are not designed for settings where there is a large audience *(like a Broadway show or a worship service)*, as the device cannot be shared. Each audience member with a hearing aid needs their own Bluetooth device; however, this technology works great in more intimate settings. Bluetooth technology can work with hearing aids to facilitate communication in noisy environments when the conversation is between two people. For example, people with hearing aids like to use this in a restaurant or while traveling in a car.

One resource to learn more about loops and to find locations that are looped is *http://loopwisconsin.com/.*

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