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Remote Mics + Hearing Aids = a Perfect Pair

[Resources](#)

By Stephen O. Frazier

It's a little publicized fact that even with directional mics, hearing aids are the most effective at a range of no more than [six to seven feet](#). Because of their proximity to the receiver on a hearing aid, if the mics had more power they would "hear" the sound coming from the receiver and result in feedback, especially if the volume is set very high on the hearing aids. As distance increases, sound weakens so audibility declines and the mics begin to struggle.

But while the loudness of the speech weakens, background noise does not, and it eventually simply overpowers the speech of a person some distance away. This is what's called the signal to noise ratio (SNR) and it occurs not only when the person speaking is some distance away, it can happen in loud restaurants or similar settings such as meetings. Echoes in large spaces, like places of worship or auditoriums, also become a form of noise that makes hearing the signal difficult.

The Solution

For years I relied on an old Williams Sound personal FM system to ensure I would be able to hear at workshops or meetings where it would be problematic to hear the proceedings. Bluetooth technology has let me retire that FM system and use a remote mic for such meetings. Because it is not located near the receiver on hearing aids, a remote mic can have more power and thus reach further than the limited reach hearing aid mics. These mics, clipped to clothing, serve the same function as the corded Lavalier mic used on that old FM transmitter and removed the problem of where to put the transmitter or to battle the mic's cord.



*Remote microphones can help in noisy settings with multiple speakers such as large meetings.
Credit: [@wocintechchat/Unsplash](#)*

Whether sitting in the back row of a workshop, conducting a meeting of 20 people around a long conference table, or hearing my dinner companion in a noisy restaurant, the mini remote mic for my hearing aids has saved the day. I clearly heard speech in the presence of noise. In the case of the dinner table, I can turn off the mics in my hearing aids and, thanks to the proximity of the mic to my dinner companion's face, not hear most of the cacophony of a busy restaurant but just their voice.

They Work With Hearing Loops

Recent advances in remote mic technology have now expanded their functionality. While some are just mics that let you hear better than before, picking up sound from up to 30 feet away than the hearing aids can and streaming it directly to hearing aids, others now can also pick up sound from a hearing loop via their built-in telecoils and, again, stream it via Bluetooth to hearing aids. I don't need this feature as my hearing aids came with telecoils, but there are lots of folks out there whose hearing aids do not contain these invaluable little copper spools that double the functionality of hearing aids.

Like telecoils themselves, many hearing aid buyers have never been told about remote mics and their capabilities. These devices are available from most major hearing aid manufacturers and usually only work with their brand of hearing aids. Examples are the Resound Multi Mic, Widex Sound Assist, Starkey Remote Microphone +, Oticon EduMic ,and Beltone MyPal Pro. They

share many of the same features but the EduMic, for example, is the only one that will connect with multiple pairs of hearing aids (Oticon brand) at the same time.

After upgrading to one of these more advanced mics, I value another feature found in the remote mics from one of these manufacturers—the ability to connect to an FM assistive listening system. Usually because of improper settings on the sound board, the ALS receivers in some public spaces work fine with earphones but not with neck loops due to insufficient volume in the feed to the FM transmitter to meet the greater power demand of neck loops.

My remote mic allows me to connect my hearing aids to the FM system in an event hall by plugging the mic into the venue-provided FM receiver and streaming the sound to my hearing aids. The sound techs often don't set the volume fed to their FM system high enough to adequately power a neck loop.

Then there is the availability, using that wire connection, to stream the sound from my electric piano to my hearing aids, ensuring I'm the only one hearing all of my wrong notes. When I want to hear piano pieces without mistakes, I stream the music from my CD player to my hearing aids. Alan Anttila, a hearing loop installer in Eugene, Oregon, says, "I have used that function to connect the analog audio output of my computer to the Multi Mic. I use it for Zoom meetings all the time, often I will mute my hearing aid microphones in the Smart 3D app, if there's ambient noise that could be distracting to me."

For those more technically inclined there is variety of ways this technology can be used. Jim Rau from Iron River, Wisconsin, uses a Phonak Roger ON mic which connects to his Oticon hearing aids through the Oticon EduMic and a Phonak dongle that plugs into the EduMic. He says, "This combination from different manufacturers allows me to use the Phonak mic with Oticon hearing aids." His hearing aids contain telecoils so he does not use the EduMic to connect to hearing loops but, like Anttila, he does use his remote mic to connect to his computer using the audio input jack.

Roger is an intelligent wireless technology from Phonak that transmits speech directly to hearing aids and cochlear implants, helping to overcome distance and improving the SNR. Chicago attorney Paul Lurie tells me, "I rely on Phonak's Roger system for any meetings in large groups. Roger allows multiple wireless mics to create a unified sound that goes to the Roger receiver in my Cochlear N8 implant. For large conference rooms I prefer the Roger II Table mic and use several of them on large conference room tables. This works better than using the Roger ON which was made for single smaller tables. Most people in those meetings don't consider me 'hard of hearing.'"

Shopping Around

Far too few performing arts centers, lecture halls, legislative chambers, and other public spaces offer hearing loops. If they have an FM or infrared assistive listening system, you'll need earphones or a neck loop to access the system. With earphones you may have to remove your valuable hearing aids and risk damaging or losing them. Also, often you won't know you need an ALS until the proceedings begin and you realize you're having trouble hearing. Then it's too late

to borrow a receiver. You can avoid this if there's one of these multipurpose remote mics available for your hearing aids.

Some of the basic remote mics retail for under \$200. Those with the hearing loop and/or FM option and the jack for wire connections will cost up to \$400 or more. I found a used one of the latter on eBay for \$70 that my audiologist sells for \$450. Some are also sold on Amazon and the information as to what brands and models they work with is included in the information provided by the seller.

There's an old saying, "You don't know what you don't know." Now you know about remote mics. Another saying goes, "You don't know what you don't hear." With a remote mic that may not be the case.

Trained by the Hearing Loss Association of America as a hearing loss support specialist, staff writer and New Mexico resident Stephen O. Frazier has served HLAA and others at the local, state, and national levels as a volunteer in their efforts to improve communication access for people with hearing loss. Contact him at hlaanm@juno.com. Please note that Hearing Health Foundation does not endorse any product or service.