



Mini Gems

Are “invisible” hearing aids that sit deep in the ear canal right for you? We review the pros and cons of the most innovative options.



By Barbara Jenkins, Au.D.

The “invisible” hearing aid is a relatively new category of hearing device. It is the tiniest on the market and sits deep in the ear canal.

But don't let the size fool you—these miniature wonders of technology are some of the most advanced computers anywhere. The quality of sound is better than most of us would have imagined in a larger device even five years ago, and some have a power punch so strong even individuals with severe hearing loss can use them.

While there are several “invisible-in-the-canal” (IIC) devices available (also called mini completely-in-the-canal or mini CICs), three stand out for being the smallest of the small and unique in the category. Keep in mind, however, that a mini hearing aid may not be best for you. Ask your hearing healthcare professional for help determining if IICs are optimal for you and your hearing loss.

LYRIC BY PHONAK

The Lyric is an extended-wear device that is also disposable. The Lyric is placed in the ear about a quarter of an inch from the eardrum. It stays there until it weakens or stops working, either because the battery has worn out or because it has filled with ear wax, oils, or debris. (My patients have averaged about four to 12 weeks per device.)



Here are the benefits:

- You really can't see them in most ears. Even your doctor can't see them without a scope.
- They are very comfortable for most patients; some people don't feel them at all.
- Even though the Lyric is an analog hearing aid, many of my patients have stated that the sound quality is better than the other hearing aids they've tried.
- You hear 24/7 (there's no removing them at night), plus you have the ability to adjust the volume and put them into sleep mode.

But keep in mind:

- Since hearing healthcare professionals must be specially trained to insert the device, you may have to travel to find someone who is qualified to do it.
- Not every ear can be fit with the Lyric. (The average in my clinic is about 60 percent of patients.)
- While some patients never feel them, others have discomfort and even pain before their ears adjust to the deep fit. Most of the time this is temporary.
- The devices weaken and stop working over time. You can remove the Lyric yourself, but a hearing healthcare professional must insert the new ones, which could be as frequent as every month. This is something to consider if your hearing healthcare professional is not close and traveling may be a hardship for you.
- Because the Lyric is regularly replaced, the device is available by “lease” only, at an annual rate of about \$1,800 per ear. You pay the same amount whether you need four replacements a year or 12.

ECLIPSE BY SIEMENS

The Eclipse, launching in April, is another first-of-its-kind invisible hearing aid.



Here are the benefits:

- The unique custom-molding process uses a soft, flexible foam dome placed deep in the ear, so it's more comfortable than other deep-fit devices on the market.
- The hearing aid is purchased, not leased. This makes it the most affordable of all the “super mini” hearing aids. Available in a premium or standard model, the cost is roughly the same as other mini CIC devices, or between \$1,900 and \$3,200 per ear, depending on the technology level and hearing aid prices in your area.
- Since the fit is custom molded, no special training is required of the hearing healthcare professional. Any provider can fit it in your ear.

- Digital technology means that there are limitless combinations of settings to fine-tune to your unique needs.
- You can remove and replace them yourself for swimming, showers, or sleep.

But keep in mind:

- The Eclipse uses size-10 batteries that need to be changed about every week. This is similar to most other mini CIC hearing aids and will cost under \$2 a week.
- You will need to clean your hearing aids the same as with other standard hearing aids. You will also have to change the dome about every two weeks.
- Not every ear can be fit with the device, especially if the ear canal is very small, which is true of other CICs.

ESTEEM BY ENVOY

While there have been other surgically implantable hearing aids, the Esteem is innovative in its approach. It is the first device to use the middle ear bones to amplify sounds in a completely surgically implanted system. Previous surgically implanted hearing aids still had a visible component to them, but the Esteem bypasses the outer ear entirely so no one sees anything on the skull or in the ear.



Here are the benefits:

- This is truly the most invisible device on the market. It is 100 percent implanted. You don't even see it in the ear canal.
- You can shower and swim with the device.
- People with moderate to severe hearing loss can use it.
- According to data collected by Envoy, about 60 percent of people using the Esteem say it's better than the hearing aid they were wearing before, and 85 percent say their activity level increased because they didn't have to worry about their hearing aids.

But keep in mind:

- Each device costs about \$30,000 and it may not be covered by your insurance. Envoy calls the product not a hearing aid but "a prosthetic hearing restoration device." Payment plans are available.
- Only an otologist or a specially trained ear, nose, and throat doctor can implant the device. You may need to travel to find someone who can do it for you.
- Because the device is surgically implanted, there are infrequent but possible complications, including infection or a permanent decrease in hearing.

- You cannot have an MRI after the implant. Any electrical current can temporarily affect your ability to hear.
- One in 10 users reports taste disturbances, such as flavors tasting less strong, even a year after the surgery. This happens when a nerve that transmits taste information to the brain becomes damaged during surgery.
- The surgery may cause or increase tinnitus (a ringing or other noise in the ears that can be very distracting).

Other Options

Many hearing aid companies have hearing aids that to a passerby are almost invisible to fully invisible. The larger your ear canal, the better the chance that all of the hearing aid components can fit deeper inside. Examples include the Siemens iMini, the Starkey SoundLens, the Resound Alera, and the Phonak Nano. There is a good chance that one of these devices will be just as hidden as the IICs, depending on the size of your ear.

Is it all about cosmetics? Actually, deeper-in-the-canal hearing aids can provide other benefits that some of the larger devices don't. These include: decreased wind noise distortion due to the deep microphone placement; a more secure fit than a behind-the-ear device; easier use of helmets, stethoscopes, and phones, with reduced feedback; and natural sound localization.

So what's missing? The quality and size of this new generation of hearing aids is truly remarkable, but some things have to be sacrificed in order to make them so small. Usage with T-coils, stronger power, and wireless TV and phone capability are a few sacrifices. Nowadays there are waterproof hearing aids or hearing aids that need their batteries changed only once or twice a year—but these types are (so far) not among the smallest hearing devices. In my practice, most patients opt for hearing aids that are a bit larger but a better fit for their lifestyle.

Talk to your hearing healthcare professional about the specific situations where you need the most help, and review all of your options. Whichever hearing aid you decide on, and whatever the size, you'll enjoy hearing more fully the sounds around you. With today's technology, life never sounded so clear. 🗣️

Barbara Jenkins, Au.D., is Colorado's first board-certified doctor of audiology. She has more than 25 years of hospital and clinical experience in treating patients with hearing loss. She serves as Colorado's professional state commissioner for the deaf and hearing impaired, and was awarded the 2010 Leo Doerfler Award for Clinical Excellence by the Academy of Doctors of Audiology. For more information, see www.advancedaudiology.info. A version of part of this article originally appeared on Better Hearing Institute's website, www.betterhearing.org, and is reprinted with permission.