

Returning to the whole world of sound

Tim Thwaites talks about his introduction to Australia Hears.

Tim is a science writer and broadcaster with Science in Public, who are helping to publicise the Australia Hears achievement. He is also one of the millions of Australians who have put off buying a hearing aid because of the cost and stigma. He trialled and now uses an Australia Hears hearing aid that he purchased at his own expense online.

After years of muffled hearing, the world's a noisy place for someone being reintroduced to crisp sound. Suddenly audible are the sounds of the explosive snap of the metal tongue of a closing door, the repetitive sound of a traffic indicator, the trickle of running water and the rustle of clothing.

The first days—seconds even—of hearing aid use are a real ear opener. On the one hand, you are spellbound at sensing all the wonderful intricacy of the sound you were missing; on the other, it is a jarring return to a nerve-jangling world of noise.

Control is the compromise between the magic of sound and irritation of noise—having the capacity to match the volume of sound to the sensitivity of your ears across a wide spectrum of pitch. Australia Hears is putting this ability into the hands of any hearing aid user with access to a computer.

My experience with Australia Hears hearing aids

Australia Hears has matched sophisticated sound processing techniques—developed by the CRC for Cochlear Implant and Hearing Aid Innovation and Dynamic Hearing Pty Ltd—with the latest hearing aid hardware from America Hears, and their own fitting software to produce hearing aids which can be customised to by an individual to their specific hearing needs.

In fact, after submitting your latest hearing test or completing an online questionnaire, you can acquire your hearing aids online and subsequently fine tune them on your home computer. The fine tuning for different environments can be done using a software program called I Hear You™ and a programming box that connects your hearing aid to your computer. The box can be borrowed or purchased for \$275. The user can then switch easily between the programs as they move from different hearing environments such as an office, home or restaurant.

Not only do you gain enormous control over what and how you hear, but Australia Hears provides the latest in hearing aid technology for less than half the cost of its competitors. The idea is to break down the barriers of high price and stigma that prevent people from thinking of hearing aids in the same way as glasses—they are a routine device that simply makes listening easier.

A visit to the Australia Hears website at www.australiahears.com.au will furnish you with information on the company, its staff and

a history and explanation of its technology, along with frequently asked questions and a series of testimonials from users. You will also be able to purchase one of three hearing aid models, plus a range of accessories. The models vary in terms of size and power.

In order to assess whether you really need a hearing aid, the website provides a questionnaire and a couple of options for testing. The best option is a traditional audiogram test conducted by a professional audiologist. This generally costs less than \$100. If you can provide Australia Hears with the results, the company then can pre-program your hearing aid before sending it out to you.

If you decide you need a hearing aid, the price of a single device ranges between \$990 and \$1250, at most \$2500 for both ears. And the purchase can be completed on the secure website using a credit card. The only other question you have to settle, besides which model and colour suits best, is to do with the length of the tube which sits in your ear. This is a simple matter of printing out a measuring template provided on the website, and having someone help you to estimate your ear size. The instructions and illustration are relatively clear.

Taking delivery and control

The hearing aids can be delivered to your door in Australia within a day or two, in many cases overnight, depending on where you live. They arrive with everything you need, including intelligible instructions, although, as always, you need to be prepared for the odd misconception, especially if you have never dealt with hearing aids before.

I thought, for instance, that the speaker in ear (SIE) model I ordered would actually be lodged in my ear, as I had seen other hearing aids of that style. In fact, all Australia Hears devices sit behind the ear with transparent tubes containing the speakers leading into the ear canal. The SIE models, however, are small enough to be completely unobtrusive. (My work colleagues and children only noticed my hearing aids after they had been told I was wearing them.)

After getting that straight, I found that fitting the devices is simple and intuitive. The pictures provided helped. Essentially, what you are doing is putting a tiny, speaker/microphone into your ear canal, close to your ear drum, and the electronic hardware which manages it is lodged behind your ear.

Apparently, when the batteries are properly installed in the device, there is a reassuring beep but, if your hearing is deficient, without your hearing aids in, you are unlikely to hear it. Similarly, when the batteries lose power, after about 100 hours of use, they warn you with a set of beeps. But always remember to open the battery door to switch the device off before you store your devices for the night.

Once the batteries are loaded and your hearing aids are in, be prepared to make some adjustments. The first sounds lost when your hearing begins to go are sibilant and percussive, the friction of the world. Restoring them produces a cacophony of rustling, scratching, whirring, humming, and explosive clicks. Until you are able to hit the volume control, or the auditory part of your brain adjusts, your voice itself sounds hard and tinny—and it can feed back into speaker itself, giving the impression of speaking in a metal-lined cavity. Much of this harshness disappears when you tune your hearing aids to meet your requirements.

While that introduction may sound a little unnerving, the revelation of what you have been missing more than compensates. Suddenly you have the ability to hear clearly what people are saying, even when speaking softly and recognise a footstep as not just a muffled thud. You can even hear the rustle of the leaves as the wind blows through them; and the warning noise that there is someone out of your vision about to collide with you.

Sound takes on a subtlety you never really recognise until you have it taken away from you. And although your hearing aids will have been pre-tuned to suit your hearing, there will always be room for refinement.

So, I view the purchase of the I Hear You programming box and software—which is technically an accessory—as essential. It not only sets Australia Hears apart from other hearing aid suppliers, it also ensures you have the ability to adjust your hearing to particular environments. Further, it is an insurance policy against the changes your hearing will go through as you age. You can tailor your hearing aids quickly and easily in the comfort of your own home.

My step-by-step installation experience

Initially, that experience involves installing the software on the enclosed CD on your computer. Then you connect your hearing aids to a small, supplied programmer box which you subsequently attach to your computer via a USB plug—but only after you have installed the software. Most of the ensuing tuning process involves listening to sounds through your hearing aids and adjusting the settings on the computer screen. These adjusted settings are then transferred to the hearing aids via the programmer box.

The I Hear You program is easy to use, and comes with comprehensive instructions. First, you need to adjust the extent by which various pitches are boosted in each ear. This is done using chimes at four different pitches. You can adjust the sound of each pitch via a slider to a level which is comfortable. This information, in turn, is used to tune your hearing aids. Given that your hearing aids have been adjusted for you on the basis of a comprehensive hearing test or questionnaire before they were sent out, the tuning will generally be fairly minor, but the results can be significant.

Second, you need to adjust the overall volume of each device. This is done initially using your own voice, and then the sounds of the surrounding environment. By the time those two adjustments have been made, much of the original jarring and harshness of the sound environment will have disappeared. By this stage, I found that the hearing aids fitted into the surrounding sound environment so well, that I started to find myself wondering if they

were working at all. This concern was soon dispelled by asking the opinion of people close to me, and by removing the hearing aids.

Further refinement

Further down the road you will be confronted by having to decide how much you should be able to hear. After all, even when your hearing was at its best, there were lots of sounds you couldn't pick up. So how sharp should your artificially enhanced hearing be?

For the first few days or even months, that may be all the tuning you need to do. But I tried some of the more advanced tuning available. The most easily accessible uses a series of different timbres of sound—birds, klaxons, traffic etc.—to tweak the devices in more complex ways. Most people will find that, having been through the initial tuning, there is little to do. But it's a comforting experience being able to check the range of sounds you can now hear clearly.

After that, most of the adjustment will involve two things: changes in your hearing, or changes in your environment. There are, for instance, different programs for coping with the different environment that, say, musicians encounter.

The only other adjustments I needed to make to incorporate my hearing aids into everyday life were to simply get used to putting them in and taking them out, cleaning them, storing them, and generally maintaining them. To make things comfortable behind my ears, I occasionally fiddle with the hearing aids but they are generally quite compatible with my glasses.

Daily care

I take my hearing aids out before I go to bed, and store them overnight in the supplied jar of desiccant beads to protect them against moisture. Generally, I don't undertake sweaty exercise with them in. They can easily be stored in the carry case at this time. When they are out for long periods of time, I try to remember to preserve battery life, by opening the doors to the battery compartment, which switches the hearing aid off. I live in fear of the day that I will forget to take them out before showering or swimming—but one blogger who has done so says he found they survived with quick action and a wipe.

The hearing aid speaker, which is inserted into the ear canal, is normally quite stable if the devices fit properly. Many people, however—and I am one of them—like to pack them in with a little silicon cap that fits over the tip. A selection of these caps is supplied with the hearing aids. Not only can they make the speakers fit snugly, but they can also direct the sound a little more efficiently. Although occasionally the speaker can initially feel like an irritating bug has crawled into your ear, this is relatively rare, and calms down over time.

Clearly, hearing aids are not compatible with the sort of bud earphones of music players that fit into the ear—but with the earmuff type, there is no difficulty. Of course, good earphones can be adjusted to perform in a similar way to a hearing aid. But once your devices are adjusted and tuned, why would you want to go through it all again with a less responsive set of earphones?

After about a week, my wife was elated that I was speaking so much more softly and that the radio volume was still down.

For more information

Australia Hears Pty Ltd
 384-388 Albert Street
 East Melbourne
 VIC 3002
 Australia
 (03) 9667 7563
info@australiahears.com.au
www.australiahears.com.au