

HEARING MATTERS



Journal of
HEARING MATTERS AUSTRALIA
Support from real life experience



**Better
Communication**

EXPLORING
BLUETOOTH AURACAST
TECHNOLOGY

NAL'S ANNUAL
IMPACT REPORT

TIPS TO OVERCOME
HEARING
CHALLENGES

Features

3 PRESIDENT'S MESSAGE

4 OUR NEW PATRON

5 THE FUTURE OF HEARING ASSISTIVE TECHNOLOGY: LE AUDIO AND AURACAST™

Andrew Bellavia highlights two emerging technologies improving audio streaming and accessibility for hearing aid users and the public.

9 MY HEARING JOURNEY

Max Harpham, who grew up with profound hearing loss, shares his challenges and successes.

12 WHY NOISE CANCELLING TECHNOLOGY MAY BE DOING MORE HARM THAN GOOD FOR OUR EARS

Professor David McAlpine offers some insights on the impact of noise-cancelling headphones on our ears.

14 CHINA AND AUSTRALIA: 30 YEARS OF COLLABORATION IN AUDIOLOGY

Professor Philip Newall and Cristy Newall describe the long collaboration between Australia and China.

17 IN MEMORY OF MARY SPARKE (1932 - 2024)

18 HEARING RESEARCH MATTERS: NAL's Annual Impact Report 2023

20 DEAF FOOTBALL AUSTRALIA WOMEN'S TEAM

Olivia Lambert introduces the promising DFA Women's Team.

23 BOOK REVIEW - MY MAGIC FAMILY BY LOTTE JEFFS AND SHARON DAVEY

Reviewed by Roxi David, Parents of Deaf Children.

24 TIPS TO OVERCOME HEARING CHALLENGES Communication Alternatives in the Absence of Your Hearing Device

By Daniella Rahal, HMA volunteer.

26 VOLUNTEER CORNER Communication Strategies to Empower Partners

Master of Clinical Audiology student, Carrie Jenneke shares her learnings on communication strategies.

28 STUDENTS' VOLUNTEER EXPERIENCES WITH HMA HEARING AID BANK TO SUPPORT SAMOA AND PHILIPPINE PROGRAM

Ben Kitching and others share their experiences volunteering for the HAB program.

30 HEALTHY EATING, HEALTHY LISTENING

Kumar Pereira's recipe and Dr Diana Tang's research findings.



HEARING MATTERS AUSTRALIA

Support from real life experience

HMA MISSION

To provide support based on lived experience to people living with hearing loss.

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HAVE YOUR SAY!

HMA welcomes your suggestions and ideas to spread and share with the community. You can do this through your letters (emails), comments and written contributions, which you would like us to publish. Personal experiences, difficulties faced, matters which can enhance the quality of life for the hard of hearing.

Please send your emails with "Attention: Editor, Hearing Matters", in the subject line. Send it to: admin@hearingmattersaustralia.org

All material considered appropriate by the team will be published.



President's Message

Welcome to the August edition of *Hearing Matters* magazine. In this edition, we feature articles about assistive technology, communication tips for hearing aid users, and a new section called *Healthy Eating, Healthy Listening* (Page 30).

This section features a recipe by MasterChef alumni Kumar Pereira and information from Dr. Diana Tang, Post-Doctoral Research Fellow at Macquarie Hearing. Additionally, we provide a comprehensive review of the National Acoustic Laboratories' 2023 Impact report (Page 18) as part of our ongoing efforts to highlight the impactful research being done to support the deaf and hard of hearing community.

During 2024 we have been working to help grow and expand the range of support that we provide including increasing the ways in which we are able to actively engaged with Macquarie University students who are assisting us with various projects. These include supporting our events, expanding the Hearing Aid Bank program, and generating fresh design ideas for our website and social media channels. Our students have also been guest presenters in our monthly Café and Chat series of events at the HMA Office in the Australian Hearing Hub.

Excitingly, we are now collaborating with Professor Phillip Newall and Christy Newall to sort and refurbish donated hearing aids for use in their Samoa Program (May 2024). Following [Professor Newall's Café and Chat presentation](#) (Link to YouTube video: <https://youtu.be/fGV7ZSND5ZI>), several Macquarie Speech and Linguistics and Masters of Audiology students have volunteered to assist.

Currently, we are also involved in two projects with University of Technology Sydney students. One project engaged 150 final year UTS students as part of their Transdisciplinary Practice at the Cutting Edge course while the other project involves five student groups from the Masters of Marketing program. Together, they're working on solutions to a series of challenges faced by Hearing Matters Australia as we look to grow our membership and help secure new corporate partnerships and funding.

As students return for the second semester, we're collaborating with a total of 12 interns from the Macquarie University PACE program. Eight of these interns are from the Linguistics programs, and they'll be creating new information resources and instructional guides.

Additionally, we're working with four Media Studies students. Their tasks include editing videos of our Café and Chat sessions, developing content for our YouTube Channel, and producing a new series of videos that highlight the challenges faced by people who are deaf or hard of hearing. We're also planning to release podcast-style video interviews featuring talks with researchers and individuals with hearing loss on our YouTube Channel later this year.

Our Outreach Talks program continues to grow, with recent talks held in partnership with the City of Sydney, Relationships Australia, and the Chinese Australian Services Society. With more events planned over the coming months.

We are also thrilled to announce that Her Excellency, the Honorable Margaret Beazley AC KC, Governor of New South Wales, has accepted our patronage application and granted Vice Regal patronage to Hearing Matters Australia. We eagerly look forward to working with the Her Excellency the NSW Governor in the future.

Brendan Lonergan

Our New Patron



Her Excellency the Honourable Margaret Beazley AC KC.

We are thrilled to announce that Her Excellency, the Honourable Margaret Beazley AC KC, Governor of New South Wales, has graciously agreed to grant Vice Regal Patronage to HMA, starting from 1 July 2024.

Her Excellency the Honourable Margaret Beazley AC KC is the 39th Governor of New South Wales, and was sworn-in on 2 May 2019.

We are deeply grateful for Her Excellency's support of people living with hearing loss through HMA's work and commitment.

Her patronage inspires us to continue our mission with renewed passion.

The Future of Hearing Assistive Technology: LE Audio and Auracast™

By **Andrew Bellavia**, Founder of AuraFuturity

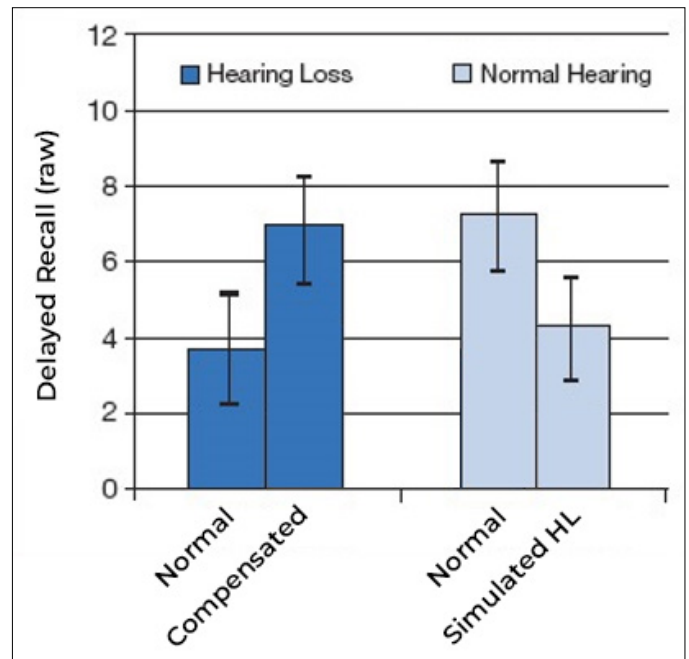
As hearing technology continues to evolve, new innovations are revolutionizing how people with hearing loss connect to the world around them. Two emerging technologies, LE Audio and Auracast™, promise to dramatically improve audio streaming and accessibility for hearing aid users and the broader public. Let's explore how these advancements are shaping the future of hearing healthcare.

The Importance of Connectivity for Hearing Aid Users

For those with hearing loss who live in both the real and virtual worlds, it's important that they have solid connectivity to all the devices they use throughout the day. Connectivity enables hearing aid users to directly stream audio from phones, TVs, computers, and other sources. This provides much clearer sound than relying on a device's speakers. Streaming a podcast or audiobook directly to hearing aids offers a vastly improved experience compared to listening to a smart speaker some distance away.

Connectivity is also vital for work, especially in the age of frequent video calls and online meetings. Straining to listen over the course of the workday can result in fatigue and lowered attention span, not to mention misunderstandings, all of which can harm one's career performance.

One study demonstrated this nicely. A standard verbal recall test was given to two groups of people using headphones. One had normal hearing and the other had hearing loss. The group with hearing loss scored substantially lower. Next, the group with normal hearing took the test while simulated hearing loss was applied to the audio. The group with hearing loss received audio altered to compensate. The results were reversed, with the normal hearing group scoring substantially lower. It is clear that hearing well leads to better career outcomes, both in person and online.



Recall test scores v. hearing loss.

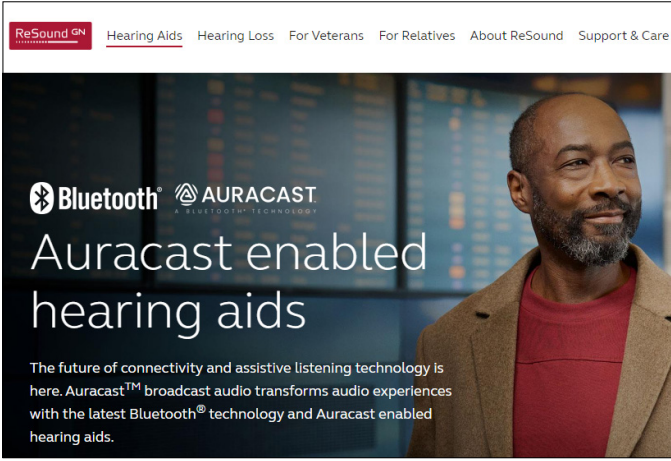
Full paper: psycnet.apa.org/record/2018-44485-001

Summary: agemed.org/e-journal/age-management-medicine-news-march-2020-3

Limitations of Current Bluetooth Technology

While Bluetooth has become ubiquitous for wireless audio, the current "Classic" Bluetooth standard has two significant shortcomings for hearing aid applications: High power consumption and long latency, or delay. These led hearing device manufacturers to create their own proprietary wireless protocols. While one company, Sonova, was able to overcome the power issue and support Bluetooth Classic, the latency remained. That is why even Phonak hearing aids still use their proprietary low-latency system for remote microphones and TV streamers.

These proprietary systems are not actually "Bluetooth" which is a copyrighted name owned by the Bluetooth Special Interest Group (SIG), the organization responsible for creating Bluetooth standards. Only devices tested and approved by the Bluetooth SIG can claim they support "Bluetooth."



Only devices qualified to the standard by Bluetooth SIG may use the Auracast logo.

Source: resound.com/en-us/hearing-aids/auracast-hearing-aids

While the proprietary systems created by the hearing device manufacturers solved some problems, they introduced new ones:

- Lack of interoperability between brands
- Limited innovation due to closed systems
- Compatibility issues with certain phones/devices
- Periodic connectivity problems after OS updates

Enter LE Audio and Auracast

Bluetooth was an aging system designed originally for mono phone calls. The ability to transmit stereo for music was added later, but it was not designed for true wireless devices (as opposed to headphones with a wire between the ears) which didn't exist at the time. Therefore, workarounds had to be developed that resulted in less than an ideal experience. Thus, there were already valid reasons for creating a modern version of Bluetooth when the hearing aid manufacturers asked the Bluetooth SIG to develop a new version addressing the needs of the hearing industry. What emerged were two new technologies: LE Audio and Auracast.

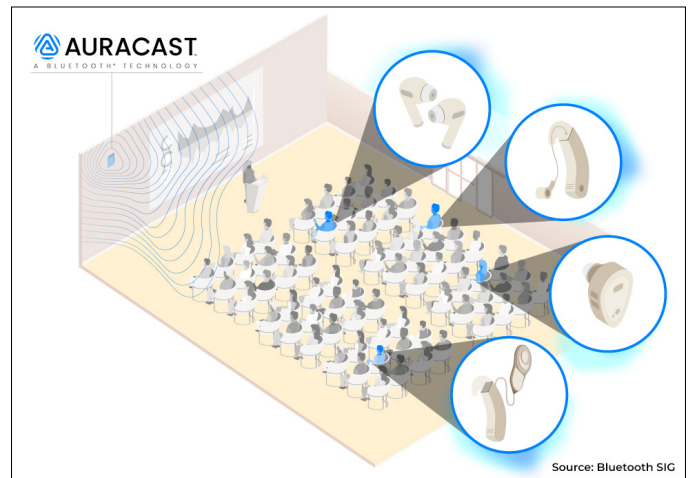
LE Audio

LE Audio is the next generation Bluetooth standard designed from the ground up for improved audio experiences. Key advantages include lower power consumption, lower latency (as low as 20-30ms vs. 100ms+ for Bluetooth Classic), higher audio quality, and fast pairing.

LE Audio will rapidly become the default Bluetooth audio standard across all consumer products as well as hearing devices. This is of value to hearing device manufacturers, hearing care professionals, and their patients. Device manufacturers will no longer have to develop their own protocols or be responsible for ill-maintained proprietary systems within smart phones. Just as with today's headphones, speakers, and earbuds, Bluetooth LE Audio enabled hearing devices will deliver a more seamless, reliable experience. This will reduce the support workload needed in hearing clinics and will make the end-user experience easier and more reliable.

Auracast

Auracast is a new broadcast audio capability built on LE Audio. Unlike traditional one-to-one Bluetooth connections, Auracast allows one audio source to broadcast to many receivers simultaneously. This opens up exciting new use cases especially for accessibility but also driven by mass-market applications.



Key features of Auracast:

- Any number of compatible devices can tune into a broadcast.
- Works with hearing aids, cochlear implants, earbuds, speakers, and other audio devices.
- Adjustable latency for larger venues where the live sound delay can be longer than the streaming audio.
- Multiple ways to select a channel. A phone app, much like choosing a Wi-Fi network, will be most common. Other ways including scanning QR codes, NFC taps, etc.

- Channel selection can be incorporated into other devices like smart watches, smart earbud cases, and even hearing aid remote controls.

Real-World Applications and Benefits

Auracast applications can be broken down into several major categories:

Personal Use

Increasing numbers of smart phones and tablets can transmit Auracast for sharing audio with friends or family, watching a movie together, or even for simultaneous playback across several Bluetooth speakers for multi-room audio. In the home, Auracast transmitters can be placed on TVs, computers, smart speakers and other audio sources that are not already compatible. This allows hearing device users and anyone else with compatible headphones or speakers to seamlessly tune in.

Silent TVs

Imagine going into a health club or sports bar with multiple TVs on the wall. With Auracast, you don't have to watch in silence. Just tune in to the desired TV and enjoy the audio. Most hearing devices, and increasing numbers of earbuds, also allow a mix of streamed and ambient audio. You can converse with others while listening to the match, just as if the TV were playing in the background.



Images: Supplied.

Public Spaces

Auracast has huge potential to improve accessibility in public venues:

- Theaters can offer multiple audio streams including regular audio, dialogue enhanced audio, and descriptive audio for people with low vision. Alternate languages can also be transmitted.

- Airports gates, metro cars, and the like can stream announcements.
- Conference centers can easily add Auracast to their existing audio systems. This is especially relevant for configurable spaces where portable audio systems are rolled in. The Auracast transmitter is a small device that can be carried into the room, plugged into the sound system, and be running in minutes.

The list goes on and on. Many of these locations are difficult, if not impossible, for hearing loops. Auracast deployment in public spaces, by providing interesting and valuable audio experiences for everyone, will dramatically increase accessibility for those with hearing loss.

In the Workplace

The audio quality in office meeting rooms is not always ideal. This can be a particular problem during hybrid meetings. Speaker quality and arrangement, room acoustics, and noise can make hearing remote people difficult even for people with normal hearing. An Auracast enabled conference room will allow anyone to receive clean, streamed audio using ordinary earbuds as well as hearing devices.

When attending a meeting remotely, an LE Audio capable PC will allow easy, direct connection to compatible listening devices. When Auracast is added, several people can receive the audio while sitting in front of the computer. In addition, the latest Windows 11 update soon to be released will enable new features for hearing device users including being able to control hearing device programs from the PC and adjusting ambient sound levels to focus on virtual meetings. Coming later will be AI-powered sound recognition, for example notifying you on-screen of a knock at the door during a call.

The Emerging Ecosystem

While still in early stages, an ecosystem of Auracast-compatible products is rapidly developing. Events are moving fast so that more devices will likely be announced before this list is published.

Hearing aids & cochlear implants:

- GN ReSound Nexia & Jabra Enhance Pro (available now)
- Signia IX and Oticon Intent (ready for

software update)

- Cochlear Nucleus 8 (ready for software update)
- Starkey has not announced but has been publicly sharing their collaboration with Intel on LE Audio PC functionality
- Other hearing device manufacturers are known to be working on it and may announce soon

Consumer electronics:

- Samsung TVs
- JBL Bluetooth speakers
- Various wireless earbud brands are now announcing in a steady stream

Computers (LE Audio to begin):

- PCs with Evo Edition processors and Windows 11 2024H2 update for advanced hearing device features (some earlier PC models will provide basic LE Audio connectivity without advanced features)



Image: Supplied.

PCs with the Intel Evo Edition badge will support hearing aid connectivity with advanced functionality.

Venue equipment:

- Ampetronic large venue transmitter and Listen Technologies handheld receivers under Auri brand shipping later this year
- Bettar large venue transmitter and handheld transmitter / receiver combination unit shipping later this year
- Audeara teased a clip-on transmitter / receiver combination unit and headphones including a demo at ACAud

As more consumer devices adopt these technologies, awareness and demand are likely to grow quickly.

Deployment Timeline and Considerations

While by no means certain, the pace of Auracast adoption may occur along three tracks:

1. Personal/Home Use – Already happening as compatible products enter the market.
2. Multi-Screen Venues – Likely to accelerate as more earbuds become available due to competitive advantages, for example sports bars offering audio for every TV when others don't.
3. Single Screen/Stage Venues – Adoption may be at a slower pace since many already have assistive listening systems in place. Therefore, there is less incentive to add Auracast.

For venues considering upgrades, it's worth noting that Auracast can coexist with existing technologies like hearing loops. Some newer hearing aids support both Auracast and telecoil, allowing for a gradual transition.

The Future of Accessible Audio

LE Audio and Auracast represent a significant leap forward in audio connectivity and accessibility. As Chuck Sabin from the Bluetooth SIG [noted](https://youtu.be/ZxPUeE8MenU?si=PnFtivrRsee8wpa) (link: <https://youtu.be/ZxPUeE8MenU?si=PnFtivrRsee8wpa>), these technologies aren't just about addressing hearing loss - they're about "overall accessibility" and providing options for people with diverse needs.

From improving workplace performance to enabling richer experiences in entertainment venues, LE Audio and Auracast have the potential to enhance quality of life for many people. As the ecosystem grows and adoption increases, we're likely to see creative new applications that we haven't even imagined yet.

For the hearing care community, embracing and championing these technologies will be crucial in providing the best possible outcomes for patients across their entire lifestyle. By staying at the forefront of these advancements, hearing care professionals can help usher in a more connected and accessible world for their patients with hearing loss.

My Hearing Journey

By Max Harpham



On the 17th April 2005 I was born into this world, weighing in at 9 pounds and 10 ounces from birth,

I was a very big and happy baby.

However, the world I was born into was missing something, I was born into a world void of sound. I was born profoundly deaf. The doctors had noticed an issue with my hearing ability after I went through the Newborn Hearing Screening. As a result, after only 18 days of being in this world, on the 5th May 2005, I was diagnosed with a profound hearing loss in both ears. The cause of my hearing loss was determined



Image Source: Supplied

to be the result of a recessive gene present in both of my parents known as 'connexin 26'. At 18 days old I was probably yet to form a single thought, so I can't say that I was too upset with this diagnosis at the time. My parents however, were understandably, very scared and unsure of what to do in the situation. Scared, uncertain and overwhelmed with many emotions, my parents reached out to a family within their social network that had a boy with a hearing loss. The family gave my parents their advice on what they did with their boy to ensure he got the support he needed. They explained how they attended The Shepherd Centre (TSC) which is a non-for-profit organisation that specialises in assisting deaf kids in learning to listen and speak from a very early age. And so at 6 weeks old, I joined TSC as a part of the early intervention program. Fast forward a few months to roughly around September/October 2005, I received my first cochlear implant in my right ear at a very young age of 5.5 months old making me among the youngest cochlear implant recipients at the time. To this day, I'm yet to meet anyone who has been implanted earlier than I was, although I'm sure there has been someone implanted earlier than me. I was then later implanted again in my left ear at 13 months old and within a short while I was able to hear out of both my ears. However, being able to hear out of both ears didn't mean everything was resolved, it didn't mean that my hearing loss was "cured" or "fixed", far from it. If anything, this was the start of my hearing journey and I started this journey with the Nucleus Freedom speech processors.

Growing up with a profound hearing loss was definitely not an easy task, it was a lot of work as there were many challenges that I faced over the course of my childhood and still face to this day. Hearing aids and cochlear implants open up our brains to the rich world of sound, but they don't teach us how to navigate it. Just because we have legs doesn't mean we know how to use them straight away, we learn how to use our legs and we learn how to hear, among many other things. More often than not throughout my childhood, I struggled to understand what people were saying, even though I could hear, it felt like the speech I was hearing was scrambled or encrypted and I didn't have the code to decrypt the message. I found it very challenging to decipher speech encrypted by everyday noise. As a result of this struggle, I had developed a habit of saying 'what' every time someone said something, even if I knew what they said I would just say it out of habit. My mouth just couldn't wait to say 'what'. I'd also find myself taking a while to process what people were saying and I wouldn't understand what they'd said until shortly after, or I'd understand what they said as they were repeating themselves. While that may not sound so

bad, it's important to factor in how quick and rapid conversations can be, especially when in groups and especially as kids in a playground or on a field running around. At times these challenges could be very discouraging and demotivating. I was struggling to keep up with group conversations as they're rapidly bouncing between people all while constantly changing topics. Trying to keep up with it all was exhausting, I often found myself zoning out and eventually withdrawing from the conversation and even the group. At times, it felt like I wasn't able to connect with my peers and this was quite a lonely feeling. Something they didn't tell me when they diagnosed me with a profound hearing loss at 18 days old was that it'd be quite a lonely journey, or maybe they did tell me, but I just didn't hear them.

However, if there is anything I've learnt, it's that there is always a work around to these challenges. Throughout my childhood, I was an excellent lip-reader, I could lip-read people on TV, people in the distance, I could lip-read almost anyone. Lip-reading relieved a lot of my struggles in understanding people, it restored a lot of my confidence too and not only that, it was an entirely sub-conscious process. More often than not, I wasn't aware that I was lip-reading, it became something that was as natural as breathing to me. However, over the years my lip-reading ability has declined and I can no longer lip-read as well as I used to. Lip-reading wasn't my only method of overcoming my communication challenges though, I'd also try to manipulate my surroundings by avoiding busy noise environments that would make it difficult to hear. Not only that, but I found it easier to follow along with conversations that I was guiding and over the years I've found it much more enjoyable and easier to have conversations with smaller numbers of people, particularly 1-on-1 conversations.

The challenges I faced weren't just about not being able to understand people though. When I had the Nucleus Freedom processors, they required a big battery pack to be accompanied with the processors at all times in order for them to work. This was quite a mildly infuriating thing to deal with, so my mother sewed together a battery pack holder which I would wear on my back underneath my clothes as a work around. Thankfully, I didn't have the Freedom processors for too long and in 2009 I upgraded to the Cochlear N5 processors which no longer required a big battery pack to go with them. I had the N5 processors until 2013 from which I upgraded to the N6. A major issue I had during my time with the N5 & N6 processors was when I would play sports. I used to be very competitive at soccer and basketball which I played for over a decade of my life. These sports tended to be quite physical involving a lot of rough contact making it very easy for my processors to come flying off. This is where I used double sided tape to stick the processors to my head, behind my ears as a work around. Doing this was very successful in stopping my processors from falling off.



Image Source: Supplied

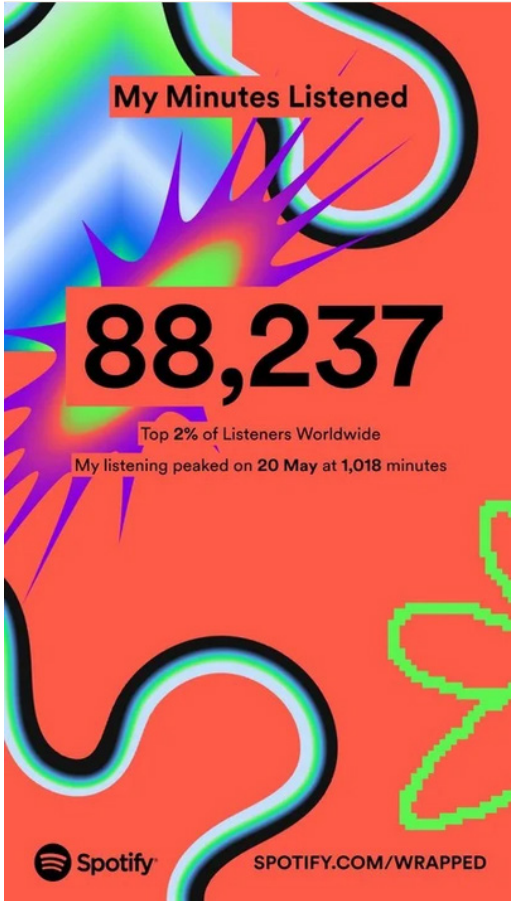


Image Source: Supplied

A big part of me is my love for music, I am constantly listening to music. Last year in 2023, I listened to 88,237 minutes of music according to Spotify statistics. 88,237 minutes converts to 1,470 hours, 61 days or 2 months. That is 2 months straight of listening to music. This statistic placed me in the top 1% of people worldwide for time spent listening to music on the Spotify app. In 2021, I upgraded to the Cochlear N7 speech processors which have allowed me to stream music to my cochlear implants from my phone using the Nucleus Smart App. This feature has been amazing and it's definitely my favourite feature of the N7 or any of the speech processors. But whether or not I stream my music or listen to it live will usually depend on my mood and the type of music I'm listening to. If I'm in the car, I'll be listening to the music live through the car speakers usually on full volume. My car is my favourite place to listen to music. I often go on long drives listening to music live, but if I'm not in my car, I'll be streaming my music to my cochlear implants.

I attribute a lot of the success in developing my speaking and listening abilities to the professionals who supported me, but also those close to me who supported me during my journey. Throughout my childhood, I spent a lot of time at TSC and in intensive speech therapy developing my listening and speaking skills. Not only was I part of the early intervention program at

TSC, I was also involved in the School-Age Services program which contributed majorly to the success of my listening and speaking abilities today. I really admire the professionals who supported me along my journey. So much so that I've been inspired by these professionals to undertake a Bachelor of Speech and Hearing sciences and I'm currently in my 2nd year and I have a strong ambition to further pursue my studies in a Master of Clinical Audiology upon completing my Bachelor's degree. My goal is to be a paediatric audiologist specialising in cochlear implants.

I give back to the community who gave me so much by volunteering my time at Hear For You [Home - Hear For You](https://hearforyou.com.au/) (link: <https://hearforyou.com.au/>) as a mentor where I help facilitate and run programs primarily for kids of a high school age who have some sort of hearing loss. Hear For You shares the same goal as TSC, that is assisting children with hearing loss take control of their lives. I also volunteer my time with Hearing Matters Australia for their Hearing Aid Bank under the Samoa Program. I test and clean hearing aids which are then packed and sent to Samoa where they are fitted to those with a hearing loss. My Journey with TSC is very full-circle, I went from being an alumni to now being a part-time employee where I currently work for the clinical department.

My hearing journey started at 18 days old, and at the time of writing I'm just over 18 years into my hearing journey, I've come a long way. Growing up with a profound hearing loss has definitely shaped the person that I am today, and I still have so much more to learn in the years to come.



Why noise cancelling technology may be doing more harm than good for our ears

Podcast interview with Professor David McAlpine republished from Radio New Zealand (RNZ) website posted on 10 Mar 2024

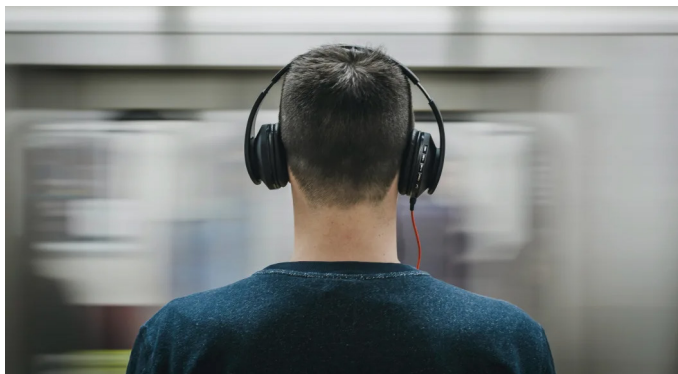
Noise cancelling devices are big business and are already worth US\$13 billion annually, and it's no surprise as excess noise exposure is linked not only to hearing loss but increased risk of cardiovascular disease and depressive symptoms.

However, as the world around us seems to become increasingly noisy and we seek refuge in technology, experts are becoming increasingly concerned that noise-cancellation may have its own hidden problems.

It is thought that younger people are more at risk as earbuds become ubiquitous and a permanent feature when doing even the most mundane tasks. Of the 300,000 New Zealanders with hearing issues, it's unknown how many of these are not related to aging.

Professor David McAlpine is the academic director of Macquarie University Hearing in Sydney and he says too much noise reduction comes with its own health warnings.

Multiple studies have shown that constant earplug wearing, day and night, over just one week is enough to result in new-onset tinnitus.



Professor David McAlpine says too much noise reduction comes with its own health warnings.

How does it work?

McAlpine explains that noise cancellation works by screening out noises generally not directly in

front of you. Algorithms use the microphones to screen out the ambient noise, usually low-level frequencies such as traffic noises.

The consequence is that this can also screen out other sounds, including voices, too.

"Noise cancelling was really about predicting and knowing what the noise background actually is, and one of the problems with noise cancelling technology, especially in hearing aids is that the technology assumes the person speaking to you is standing in front of you.

"They're cancelled out, they're removed, they're scrubbed, and that's a big assumption."

From ears to heart

Yet the range of loud sounds we are exposed to has become part of modern life and gig economy workers, such as the barista or delivery driver, can be exposed to ever increasingly louder sounds from multiple sources.

It's not just our ears that are at risk. All of this has a knock-on effect on our wider health, especially the heart.

"We think about noise now, which is damaging your heart. We know that low level noise exposure well below the level that we actually think damages your inner ear can result in an increase in cardiac events.

"There's clear evidence that nighttime noise exposure as well, even if it's 65 or 70 decibels, which shouldn't be anywhere near damaging your inner ear, is actually increasing the risk of heart attacks and cardiac events as well.

"With every decibel it goes up above 60 dB, background noise has something like a 1% increase in cardiac events and that is a huge difference over a population. That's noise affecting your life in a way that isn't affecting your hearing."

So, cancelling out sound should be good, right?

Well, cancelling out noise whether through technology or with simple earbuds can have some consequences too.

McAlpine says, "Some people need earplugs to reduce damaging or intrusive sounds, but they aren't actually necessarily good for you otherwise.

"We do know that if you block out sounds that are supposed to be heard, you can get an elevation of your brain gain as it's called. It's a bit like the internal volume knob of the brain isn't picking up all the sound levels it thinks it should be, and it turns up the volume internally and increases the gain."

Research into sound suggests that our brains need some ambient sounds and that deadening quiets are not good for us either, and paradoxically is one of the drivers that leads to tinnitus.

"We have to understand that we are connected to our environments through sound, not just the sounds we actively perceive, but also the sounds that impact on our ears, which we kind of ignore but actually help us understand the room, help us listen to others, help us learn."

All this has an impact and intersects with sleep and a host of other related conditions like tinnitus and ADHD.

McAlpine says that using noise cancelling devices for prolonged periods essentially disrupts the natural way in which our brains cope and interpret sound, whether while we are asleep or going about our daily routines.

While the full effects of hearing and sleep are not fully understood, researchers are collaborating to see if there are links.

For McAlpine there's a wider point about using technology to drown out sounds for long periods of the day.

He argues that in some ways by people creating different sound environments for themselves - a sort of VR for the ears - it means that we are not thinking about how best to build the right kind of built environments.

"From the economic perspective, how we've constructed our environments and we retrofit—we retrofit our sound systems, we retrofit our noise cancelling to accommodate poor environmental design.

"We don't spend the money and we know that ergonomic aural architecture gets waylaid by cost. So, when the first thing to go on the budget line is the sound environment and the exploration and damping of noise is the first thing to go in the budget."

The future

While the picture painted may look depressing there is hope. Therapeutics for hearing loss and ways of building better sound environments are being looked at more seriously.

McAlpine explains how gene therapy is being explored to help restore hearing in a pilot population of children which could have benefits for all of us.

"So, a pill for hearing might be one that protects you when you go to the gig, a pill for hearing might be one that you actually take after you've been to a noisy place or a concert that actually would restore the cells in your inner ear before they start to go into this journey into damage.

"Or it might be a gene therapy that you give in utero when we know that, you know, childhood hearing loss."

For McAlpine the advice is clear, not all noise and exposure is bad.

"It's rather a balance between the noise we cancel out and the ones we shouldn't be afraid to put up with. Loud and prolonged sounds are a danger but cutting ourselves off from the sounds of our noisy children or the hum of the neighbours mower might do just as much harm.

"In the end noise cancelling technology can be helpful, but we should avoid prolonged use."

Source of the article: <https://www.rnz.co.nz/news/national/511309/why-noise-cancelling-technology-may-be-doing-more-harm-than-good-for-our-ears>

China and Australia: 30 Years of Collaboration in Audiology

By Philip and Cristy Newall

In 1994, the journey began with visits to several audiology clinics in Beijing. Air and bone conduction tests were often performed by nurses using outdated audiometers in inadequately equipped rooms. These techniques seemed reminiscent of the 1950s in the UK. In the Institute of Otorhinolaryngology at Tong Ren Hospital, outdated tests for recruitment and tone decay were still in use, reflecting practices from the 1970s in the UK.

Hearing aids, including locally manufactured body aids, were sold in hospitals, private clinics, and even over-the-counter in pharmacies. This situation was in dire need of modernization, especially as cochlear implants were becoming available, with Cochlear Ltd marketing their devices in China. The Australian Government, under Prime Minister Paul Keating, aimed to forge closer links with China, marking a shift from the previously exclusive ties with the UK and the USA.



Initial meeting in Beijing in 1994.

An Academic Program in Audiology

The Australian Government, through AusAID's International Development Fund (IDF), funded various projects, including audiology. A collaborative application from Hearing Australia, Bernafon, Cochlear Ltd, and Macquarie University led to a visit to several Chinese clinics in 1994 to seek a partner. Professor Han De Min at Tong Ren Hospital welcomed the initiative, understanding the motives behind the grant.

The project aimed to develop sustainable hearing services in China, train eight Chinese students to Australian standards, and establish a teaching nucleus for future audiology programs. The program, approved by the Chinese Ministry of Education, was attached to Capital University of Medical Science and conducted at Beijing Tong Ren Hospital.

Eight Chinese students were selected after rigorous interviews. Australian audiologists made eight three-week visits to lecture and supervise clinical work. The course covered audiological assessment techniques, hearing aids, pediatric audiology, aural rehabilitation, industrial noise management, tinnitus, and cochlear implants. The students spent three months in Australia for consolidation at Macquarie University and the University of Melbourne.



Chinese doctors selected for the program with Macquarie University staff.

Student Profiles and Program Success

The initial group of students, predominantly ENT surgeons, completed the full program. Notable students included Wang Shufeng and Liu Sha from Beijing Institute of ORL/Tong Ren Hospital, and Long Mo from China Rehabilitation Research Centre for Deaf Children (CRRCDC). After the program, an undergraduate audiology course was established at Capital University of Medical

Sciences in 1999, with the Australian-trained Chinese ex-students teaching and supervising new students.



The opening ceremony of China-Australia Audiology Training Centre.



A new Clinical Audiology Center was established in Beijing Tong Ren Hospital in 1998.

Highlights of Collaboration

- Annual visits by Australian audiologists to lecture at Capital Medical University.
- A 2008 training program for teachers of hearing-impaired students in China, organized by NextSense and Cochlear Ltd.

- Deployment of an Australian audiologist, Fiona Sutherland, to work in Tong Ren Hospital through the Australian Youth Ambassador scheme.
- A scholarship from Cochlear Ltd enabled Wang Shuo to undertake a Master of Audiology degree and later a PhD in audiology with a grant from Macquarie University, leading to her return to China where she eventually led the audiology program at Capital University of Medical Sciences



Play audiometry in the new clinic - Wang Shuo at the controls.

Program for Upskilling Teachers (2008)

Cochlear Ltd's contract to supply cochlear implants to Chinese children led to a program, organized with Professor Greg Leigh of NextSense, to enhance skills for oral language acquisition. Previously, there was an emphasis on total communication and signing due to the lack of cochlear implants and well-fitted hearing aids. This program aimed to maximize the benefits provided by cochlear implants.



The programs for teachers 2008.



The graduates from the teachers' program.

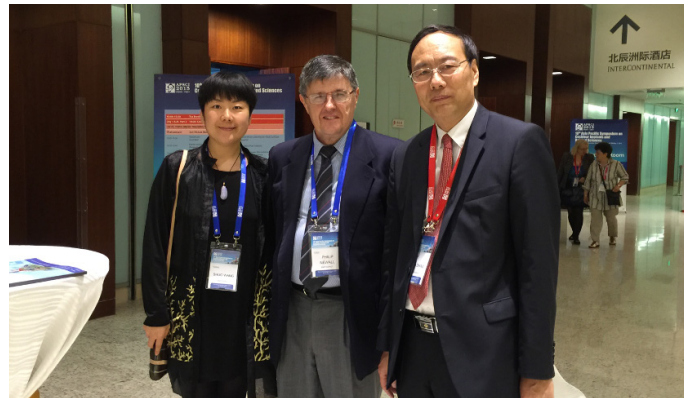
Continued Support and Advancements

Dr. Long Mo, a graduate of the initial program, became the director of the China Rehabilitation and Research Centre for Deaf Children (CRRCHSI). This center, part of the China Disabled Persons Federation, expanded its facilities and services significantly, including a new center with an operating theater for cochlear implants, a large school for deaf children, an audiology center, and extensive training programs for teachers.

Every CRRCHSI centre in China is funded by the local province. In Shandong province, we were told that children up to the age of 17 years get free hearing aids and cochlear implants and that around 4000 children now have cochlear implants. There is, of course, a great need for the upskilling of teachers of hearing-impaired children who have to work with these devices.

Cochlear Ltd has now got a manufacturing plant in China and has a major share of the Chinese market, which is impressive when there is local Chinese cochlear implant made by a company called Nurotron.

Dr Long Mo said that attempts to establish universal neonatal hearing screening began about 12 years ago. She said that there was 80% coverage in China as a whole and 99% in Beijing and Shanghai. There are great challenges in rural locations, but she reported that progress is being made. There is funding in China for children under six to get free hearing aids and cochlear implants (but note that in richer provinces like Shandong, the figures are higher).



Wang Shuo, Philip Newall and Zhang Hua of the Beijing Institute of Otorhinolaryngology.



The new China Rehabilitation and Research Centre for Hearing and Speech Impairment in Beijing, 2019.



Philip and Cristy Newall with Dr Long Mo (left) in Shandong at the 2018 China Hearing and Speech Forum 2018.



With Wang ShuFeng (left) who was one of the original audiology students at the 2019 conference.

Conclusion

The collaboration between China and Australia in audiology has been immensely rewarding. The progress in China since 1994 is remarkable, with high-level presentations at recent conferences comparable to those in the USA or Europe. It is gratifying to see the enhanced services provided to the Chinese population and to acknowledge Australia's role in this development.

In Memory of Mary Agnes Sparke (1932 - 2024)

M

ary Agnes Sparke, the founder of Hearing Matters Australia (formerly SHHH – Self Help for Hard of Hearing), passed away on 1st June 2024.

Mary dedicated her life to education and advocacy for people living with hearing loss. After many years as a teacher, she had to leave the classroom due to her hearing difficulties. Realising that more support was needed beyond lip reading and hearing aids, 30 years ago, on Tuesday the 10th of March 1981, Mary Sparke presented a speech titled “[New Horizons](https://www.hearingmattersaustralia.org/static/uploads/files/1981-new-horizons-by-mary-a-sparke-founder-of-shhh-hma-wfdilhbxoiin.pdf)” (link: <https://www.hearingmattersaustralia.org/static/uploads/files/1981-new-horizons-by-mary-a-sparke-founder-of-shhh-hma-wfdilhbxoiin.pdf>) at a public meeting in Hornsby Shire Council Chambers to launch a self-help group for people with hearing loss. She presented four main aims and sought suggestions from others interested in her ideas. The four main aims addressed were:

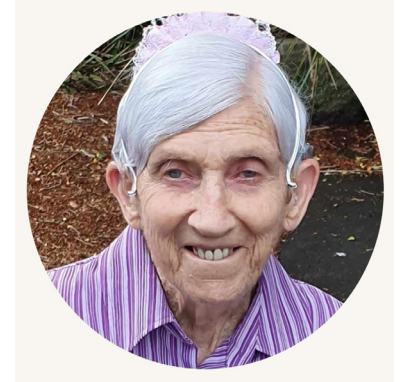


Image Source: Supplied

1. To promote a greater public awareness of deafness and hearing loss
2. To foster the integration of people living with hearing-loss people into the community.
3. To provide support and insight for the families and friends of those living with hearing loss to break new ground.
4. To stimulate people living with hearing loss to act more confidently.

Mary’s New Horizons talk has been enlightening and inspiring all who advocate and support for deafness and hearing loss. The next significant milestone in HMA’s history was reached on the 10th of January 1983, when Mary Sparke’s proposed consumer-led self-help group came into being. On this day the first inaugural committee meeting was held to draw up a constitution.

Three months later, this group was given a name - Self Help for Hard of Hearing, also known as SHHH, and pronounced as “shush”. This name was used for 35 years until its eventual name change to Hearing Matters Australia in 2018. After extensive consultation and discussion with members, it was decided that a name change to Hearing Matters Australia and an accompanying update of its mission, vision and objectives, would better reflect the changing identity and needs of its members while still reflecting the spirit and aim of its founder Mary Sparke.

Mary served on the committee from 1983 to 1987 as the first president of HMA for 3 years and then magazine editor. In recognition of her invaluable contributions, she was awarded Honorary Life Member in 1988.

Mary has indeed left a lasting legacy in SHHH/ HMA & her passing is a sad loss for all who advocate for hearing loss.

HEARING *Research* MATTERS

Advancing Hearing Health: NAL's Annual Impact Report

By **National Acoustic Laboratories**

The **National Acoustic Laboratories (NAL)** has released its much-anticipated **Annual Impact Report for 2023**, providing a comprehensive insight into the significant advancements and initiatives undertaken over the past year. The report underscores NAL's unwavering commitment to enhancing hearing health through pioneering research and innovation.

Mission and Impact

NAL's mission is to lead the world in hearing research and evidence-based innovation to improve hearing health and transform the lives of people with hearing difficulties. Since its establishment in 1947, NAL has consistently delivered critical advancements in hearing health, benefiting researchers, clinicians, industry experts, and individuals with hearing impairments.

Key Highlights of the Impact Report

Global Impact: 2023 was a year marked by global influence, with NAL extending its reach through international collaborations and multi-year projects aimed at addressing crucial hearing healthcare challenges. Some of the main collaborators include the Australian Government Department of Health and Aged Care, Google, Cochlear etc. These partnerships have been instrumental in driving forward NAL's mission and expanding its research capabilities.

Application of AI in Hearing Healthcare: One of the most significant areas of development is the application of Artificial Intelligence (AI) in hearing healthcare. NAL has leveraged AI, big data analytics, and smart device technologies to develop personalized solutions and diagnostic tools. These innovations promise to enhance diagnostic accuracy and treatment efficacy significantly.

- **AI-Powered App for Screening Children's Hearing Loss:** Focused on developing a smartphone app to screen children aged 2-4 years for hearing loss by analysing their speech. The app will aim to allow parents to conveniently screen their child's hearing at home, facilitating early detection and timely intervention.
- **Advanced Tools for Monitoring Speech Clarity in Older Children:** NAL researchers



Image Source: Supplied

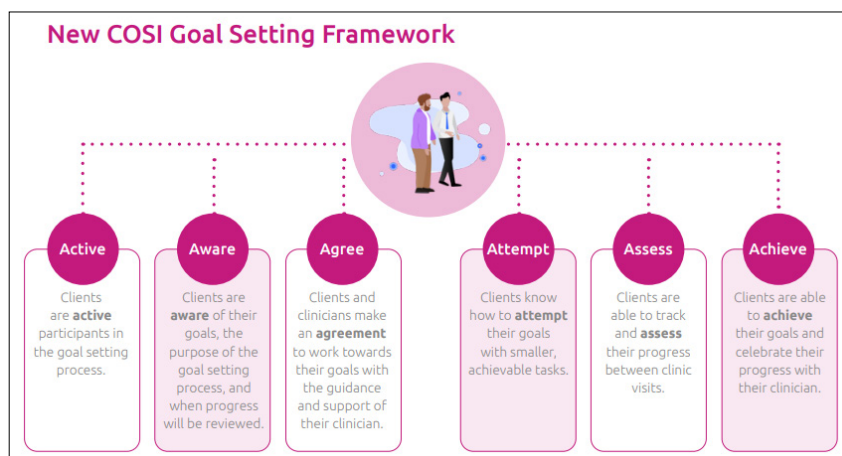
are creating AI-based tools to monitor and assess speech clarity in school-age children. These tools will provide ongoing, accurate tracking of speech development, enabling timely adjustments in treatment plans and ensuring better long-term outcomes.

- **Rapid Evaluation of Advanced Hearing Aid Technologies:** This research assessed new hearing aid features, specifically a design with microphones placed at the ear entrance. Participants with mild to moderate hearing loss tested multiple designs, with findings showing significant improvements in sound localization and user preference, especially in noisy environments.

Research and Innovation: NAL continues to push the boundaries of hearing health research with several key projects featured in the report:

- **Perceived Mild to Moderate Hearing Loss:** The study aimed to explore the benefits of hearing aids for individuals with self-reported hearing difficulties but minimal clinical hearing loss. Participants with normal or near-normal audiometric thresholds were fitted with hearing aids, and their experiences were tracked via a smartphone app before and after the fitting. Key findings indicated that even individuals with minimal hearing loss reported benefits from using hearing aids, particularly in noisy environments, highlighting the inadequacy of traditional audiometric thresholds in predicting real-world hearing difficulties.

- **Next Generation Hearing Goal Setting Tool:** This project sought to update the Client Oriented Scale of Improvement (COSI) framework to better reflect current audiological practices and client needs. The approach involved a retrospective analysis of over one million COSI goals and in-depth interviews with clinicians, leading to the development of a new goal-setting framework. Key findings emphasized the importance of client participation and the use of SMART goals to enhance the effectiveness of audiological rehabilitation.



New COSI Goal Setting Framework

Image Source: Supplied

- **Cochlear Implant Processor Upgrade:** A large-scale multi-site trial evaluated the benefits of upgrading cochlear implant processors in older adults. Significant improvements were found in speech understanding and reduced listening fatigue, supporting policy decisions for upgrades.

As NAL moves forward, it remains committed to transforming lives through innovative hearing healthcare solutions, ensuring that individuals with hearing difficulties receive the best possible care.

Visit [NAL](https://www.nal.gov.au/nal-annual-impact-report-2023/) (link: <https://www.nal.gov.au/nal-annual-impact-report-2023/>) to read the full Annual Impact Report 2023 or [Contact NAL](https://www.nal.gov.au/contact-us/) (link: <https://www.nal.gov.au/contact-us/>) for collaboration opportunities.

Deaf Football Australia Women's Team

By **Olivia Lambert**, DFA Media/Communications Officer

Deaf Football Australia (DFA) is the international body for Deaf Football in Australia, individually ran by a group of highly qualified volunteers with years of experience. DFA operates separately from the FFA (Football Federation Australia) and adheres to the rules of the Deaf International Football Association (DIFA). The game of football itself has the exact same rules as hearing football games, however players experience the added challenge of playing without their hearing devices in official international events and friendly football matches. Referees use a handheld flag in addition to the whistle to capture attention of players, for example to signal a penalty, a free kick, a corner, or full time.



TD James Lambert talking tactics to Defender Rylee Woods and Forward Adelaide Wyrzynski.

DFA players are treated as professional international football players and have the support of volunteers who are both experienced and qualified in providing the relevant care.

Deaf Football Australia's International Women's team is new and evolving, with Deaf female players as young as 14 joining the organisation to develop their skills as international football players. For DFA this growing Women's football team is a major achievement as the last time there was a women's team was during the 2005 Deaflympics. With the support of online encouragement over Facebook, family, friends and sponsorships, the Women's team recently made their first international appearance in 18 years. Their courage and determination is applaudable after the challenges they have faced with funding, support and player recruitment. Such challenges that as recent as last year interfered with their ability to compete in the Deaf Football World Cup alongside the DFA men's team.



DFA Women's Team Photo at Dicks Sporting Goods Park Denver, Colorado USA, where they played their first friendly match against USA.



DFA Women's Captain Jessica Waters vs USA.

Meet Some of Our Players

Jessica Waters

DFA captain Jessica Waters has been playing football since the age of 7 and joined DFA a few years ago before the Women's team had been established. Jess aspires to continue supporting the Deaf Women's team and increase visibility of Deaf Women's football with a goal of inspiring the next generation of players. Her knowledge in football and skills as a midfield player supports her ability to guide players and position herself according to the team's needs. Outside of DFA, Jess is highly educated, holding degrees in Exercise and Sports Science, International Studies

Image: Supplied.

(French), and Nutrition. She has completed a Doctor of Physiotherapy and currently practises as a Paediatric Physiotherapist.

Jess, what do you enjoy most about leading the DFA women's team?

"The women's team have had a breakthrough with interest and development of the squad, and it is a great time to be involved, and as captain, I am excited to be leading the team to more opportunities and experiences together."

When talking about Hearing Challenges, changes and feelings, Jess said *"Being profoundly deaf can make it challenging on and off the field. But sometimes it can be a personal advantage, and I think that's something that we all share on the deaf women's team – having the opportunity for all of us to get together, discuss and utilise our strengths, and have a bit of a laugh at some of the things that we experience. For me, I rely heavily on my hearing aids, and the feeling of removing them to enter the field can be daunting. Going from playing with a hearing team to playing with a deaf team means that we all have to make adjustments, not only for communication but positioning ourselves in play – it's something that I constantly have to remind myself of."*

Saskia Newman



DFA Women's Vice-Captain Saskia Newman vs USA.

As the vice-captain of the DFA women's team, Saskia supports team captain Jess in leading the team. Saskia is an intelligent young woman and is currently a medical student in her second year of post-graduate studies for a Doctor of Medicine and Surgery at The Australian National University Canberra (ANU). She aspires to be an ENT (Ear, Nose and Throat) surgeon after the

completion of her studies. Saskia began playing football at age 4 and has developed into a skilful attacking midfielder. This experience paired with her leadership skills and good understanding of the game, makes Saskia an asset to the DFA women's team and an important member of the leadership team.

Saskia, you have been involved with DFA for several years now, how fantastic is it to finally have a Women's squad and be part of its development?

"It has been truly amazing to witness and be a part of the development of the Deaf Football Australia Women's squad. Being involved from the early stages and contributing to the team's progress has been incredibly rewarding. I've seen the development of young players who have, in this time, gone from strength to strength, graduated school, commenced university studies, and represented us in Denver. We've worked hard to build a cohesive and competitive squad, and it's exciting to see the impact our team is having on the international deaf community and the sport."

Talking about her hearing challenges, changes and feelings, Saskia mentioned *"Being in this environment with DFA is incredibly empowering and freeing. I never have to worry about having missed anything at training even when not wearing my cochlear and hearing aid to simulate the game, as I can trust that the coaches will ensure we each understand the training session. My first time at a DFA camp in 2021 was a fabulous experience and I remember being in awe of the number of amazing deaf athletes and being surrounded by so many young people using Cochlear implants and/or hearing aids!"*

Ella Kirby



DFA Women's Midfielder Ella Kirby vs USA.

Ella Kirby began her involvement in DFA when she was 18 years of age. She is a determined player and strives to push herself to be the best footballer, going beyond previous setbacks and making herself, her coach, and her parents proud. As a developing, young player, Ella recently made her first official cap playing the full 90 minutes versus the US team. She has experience playing at high levels of football, including NPL and state league, and has enjoyed the game since the age of 8.

Ella, what is the best part about being involved in DFA?

"I love being a part of the DFA women's team because it is a place where I feel comfortable knowing I am not the only one who's deaf and plays football. I can experience all these great opportunities that DFA provide, including going overseas and playing all these different teams."

Ella talked about her hearing challenges and feelings and said *"I am in a very lucky position where I was able to receive my cochlear's at such a young age (2 years old), so I have grown up in a hearing world, where I can socialise with my friends and family and not have to worry about missing out on things because I cannot hear. Without my cochlear's, my life would look very different. It is much harder for me to play football without my cochlear's [in international tournaments] as I am used to hearing when playing with my club, but in some aspects it makes me a better player because I have to scan more, since I cannot hear."*

DFA Women's International Trip to USA

The recent trip to Denver, Colorado USA marked the first international trip for our DFA women's team in close to two decades. This was an incredible experience for the women which allowed them to connect as a team, increase skills and have a taste of international football, as all players made their debuts in the US! The team played the Deaf Women's Football World Champions, USA in a friendly match at the Dick's Sporting Good's Grounds. This game was broadcasted nationally in the US and was a double header as the team played before the US national team vs Korea. The courage they displayed to verse a skilled team like America was incredible, and although it was a challenge all players embraced the experience as an opportunity to learn.



Images: Supplied.

DFA Forward Amelia Odell and Defender Tahlia Zanardi met during a DFA camp in Canberra and have been very close friends since! Here they are walking off the field after a training session, preparing to debut together in their big game against USA.

The Future of Deaf Women's Football

What's next for the DFA Women?

To build skills, welcome new players and grow group cohesion DFA will be scheduling inclusive training camps in AIS, Canberra. This provides Deaf women footballers of all levels and ages the opportunity to



train and play football as a part of the DFA community. Later this year the DFA women's team will be playing Japan in a friendly football game here in Sydney. This will help prepare players for the Deaflympics coming up in Japan late next year.

If you would like to watch the DFA women's team grow and get weekly updates on both the men's and women's teams, follow [@Deaf Football Australia](https://www.facebook.com/deaffootballaustralia/) on Facebook (link: <https://www.facebook.com/deaffootballaustralia/>)!

Book Review - My Magic Family by Lotte Jeffs and Sharon Davey

Reviewed by **Roxi David**, Project Manager at Parents of Deaf Children (www.podc.org.au)

As a mum raising Christian, my eight-year-old son with bilateral cochlear implants, I am always on the lookout for books that reflect a unique journey and celebrate the diversity of family life.

My Magic Family by Lotte Jeffs and illustrated by Sharon Davey has truly been a gem in this regard, offering a heart-warming and vibrant portrayal of family life.

In My Magic Family, the authors craft a delightful narrative centred around a young child who proudly introduces their family, each member portrayed with distinct traits and quirks. The story beautifully encapsulates the magic of diverse family structures, showcasing how every family, no matter its composition, is special and unique.

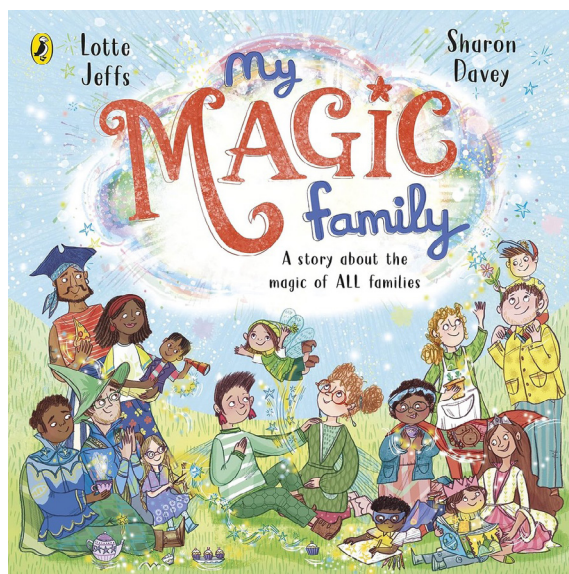
For Christian, who was born in Australia and has navigated life with hearing aids from an early age and recently with Cochlear Implants, this book is more than just a charming read. It provides a mirror reflecting his own experiences in being accepted as a child with a different way of hearing and being, as well as a window into the lives of others who might have different family dynamics. As a mum actively involved with an organisation called Parents of Deaf Children, I appreciate how this book gently addresses themes of acceptance and love, which are crucial for our community. It's reassuring to see a story that embraces various family forms and promotes inclusivity—a value that aligns with our own experiences in the Deaf community.

The book's whimsical storytelling by Jeffs and the captivating illustrations by Davey create a world where diversity is celebrated with warmth and light humour. The engaging narrative, combined with vibrant visuals, makes it an enjoyable read that captivates young minds and fosters a sense of belonging. For Christian, who finds joy in being part of both his extended hearing family and the broader Deaf community, this book offers a comforting reminder that every family is magical in its own way, and that a child can find comfort in a broader village outside the immediate household.

I see My Magic Family as a valuable resource that not only entertains but also educates. It provides an accessible way for children to understand and appreciate the diversity within their own lives and those around them. The gentle handling of sensitive topics aligns well with the ethos of fostering empathy and acceptance among young readers.

In my view, this is a delightful addition to any child's bookshelf, particularly for those like Christian who benefit from seeing their broader life experiences reflected in literature. Jeffs and Davey have crafted a story that is as educational as it is entertaining, making it a wonderful tool for fostering discussions about family, love, and inclusivity. It's a book that truly celebrates the beauty of every family, resonating with families like ours and offering a positive message for all.

This book was supplied by [Dolly Parton's Imagination Library](https://imaginationlibrary.com/au/) (Link: <https://imaginationlibrary.com/au/>).



My Magic Family

Publisher: Puffin (26 May 2022)

Language: English

ASIN: B099P8Z98C

Author: Lotte Jeffs

Illustrator: Sharon Davey

Image Source: Supplied

Tips to Overcome Hearing Challenges

Communication Alternatives in the Absence of Your Hearing Device

By **Daniella Rahal**

In an era where technology is more advanced than ever, it's ironic how it sometimes fails us when we need it the most. If you've ever experienced your hearing aid malfunctioning at a crucial moment, it's essential to have some backup strategies. Here are some handy tips and tricks to ensure smooth communication during those inevitable tech hiccups.

Transcribe Apps: Your Pocket Companion

Transcribe apps are incredibly user-friendly and often free. For Apple users, NALscribe is available for free download from the App Store. Android users can access Live Transcribe for free from the Google Play Store. These apps are lifesavers in challenging hearing environments or when you need to recall a conversation later.

Using these apps is straightforward: simply open the app, press the microphone button, and it will start transcribing everything that's said. You can save the transcripts by pressing the save button after the conversation. This feature is especially beneficial during medical appointments, where doctors often relay a lot of information quickly. With the app, you can review the doctor's instructions later to ensure you understand everything correctly. Additionally, you can change the transcription language in the app's settings, making it versatile for different language needs. For a step-by-step guide on downloading and using NALscribe, visit the [Hearing Matters Australia YouTube channel](https://www.youtube.com/@HearingMattersAustralia) (link: <https://www.youtube.com/@HearingMattersAustralia>).



NALscribe



Live Transcribe

Image: Supplied.

Digital Notepad: A Reliable Tool



The Boogie Board Blackboard

TIQUS LCD Writing Tablet

Digital notepads are convenient for jotting down notes, sketching, and communicating in difficult hearing situations. They don't require charging, as they run on batteries, making them a dependable tool to carry around. You can write as much as you need and erase the screen with a simple button press to continue your conversation. Here are a couple of options available: the Boogie Board Blackboard, available at Officeworks for \$79.86. For more inexpensive options you can find the TIQUS LCD Writing Tablet on Amazon for \$15.99.

Apple Hearing Aids: A Tech-Savvy Alternative

For those who love the latest Apple gadgets, your iPhone and AirPods can serve as a makeshift hearing aid in emergencies. Connect your AirPods to your iPhone, place them in your ears, and activate Live Listen. Go to Settings, click on Control Centre, and add the hearing option. Swipe down on your iPhone, click the hearing button, and turn on Live Listen. This feature amplifies surrounding sounds, with your iPhone acting as the microphone and AirPods as the transmitter. As Live Listen is not calibrated to your specific hearing loss it should not act as a replacement for your calibrated hearing aids, however, it is a viable alternative when needed. [Use Live Listen with Airpods or Beats](https://support.apple.com/en-au/102479) (link: <https://support.apple.com/en-au/102479>).



A notepad and pen is always handy and reliable.

Classic Pen and Paper: Always Reliable

When all else fails, having a notepad and pen handy is a timeless and effective solution. Whether it is in your pocket or bag, they ensure you're always prepared for any communication challenges.

Communicate Your Needs

Lastly, always communicate your needs to others to facilitate smoother interactions. When you are in a group setting such as a conference meeting or social occasion do not be afraid to voice your needs, remind people to speak clearly in good lighting, avoid covering their mouths, move to a quieter area such as a corner with cushioned

surfaces, ask people to talk one at a time and face you directly. By voicing your requirements, you can enhance your communication experiences significantly.

In moments when technology lets you down, these strategies can help you stay connected and ensure effective communication with those around you. Stay prepared and proactive to navigate any hearing challenges that come your way.



Image: Supplied.

Daniella Rahal, HMA Volunteer

Volunteers needed for a hearing research study

Macquarie University Hearing is looking for **adults ages 18 years and over who have difficulties with both their vision and hearing loss and someone they communicate with regularly**, to participate in an interview. This interview aims to understand:

- (1) How your condition affects you and
- (2) What you need to improve the impacts of this condition.

Participants will be reimbursed a \$40 gift card each at the end of the interview.

To check your eligibility for this study, please contact the team at:

Email: sensoryloss.research@mq.edu.au

Phone: 02 9850 8753

Mobile: 0490 950 404

This research study is approved by Macquarie University Human Research Ethics Committee: 16447

Volunteers' Corner

Breaking the Barrier: Communication Strategies to Empower Partners

By **Carrie Jenneke**



ommunication can be challenging for people with hearing loss in a world surrounded by sound. Whether the everyday interactions are casual conversations with partners, important discussions during a work meeting or listening to the cashier at the grocery store check-out.

As an audiology student, I have heard these comments many times. Understandably, this creates a lot of frustration for the individual with hearing loss and their partner. Interestingly, when talking with these individuals, a few were unaware of the strategies that can help bridge these communication difficulties.

While in high school, I had the privilege of extending my studies by taking an extra-curricular communication course. In this course, we were given the tools to develop our public speaking skills which gave me the confidence to converse in many environments. This ignited my passion for communication and led me to the field of audiology.

As a future clinician, I hope to help hearing-impaired individuals communicate confidently in their everyday environments. Through this article, I will share important strategies that can be used to enhance communication, empowering both hearing-impaired individuals and their partners.



Carrie Jenneke, HMA Volunteer

Image: Supplied.

Strategy 1: Talk in the Same Room

It might seem obvious, but distance is important when talking to someone. Problems often happen when people try to talk from different rooms. Yelling from another room might be easier for you, but it can be very frustrating for someone who has trouble hearing. When you talk from different rooms, sound has to go through many things. Sound gets weaker as it travels through the air, and objects such as furniture can absorb sound, making it quieter. Hard surfaces, like tile floors, can cause reverberation that make it harder to hear clearly. By talking in the same room, sound doesn't have to travel as far and won't be as weak or distorted. This makes it easier for someone with hearing problems to hear you better.

Strategy 2: Face Your Partner When Talking

Not only will your speech be at its loudest in the direction you are facing, but hearing-impaired people can utilise visual cues. Visual cues can substantially increase speech understanding when coupled with sound, bridge the gaps of missing speech sounds and provide important contextual information.

Visual cues include lip-reading, facial expressions, body language and hand gestures. During lip-reading individuals can visually interpret the movement of speech articulators such as the lips and tongue to understand spoken words. Facial expressions and body language convey important context to the conversation. This includes emotion which can support speech understanding. Hand gestures such as sign language, can serve as a primary form of communication and bridge the gaps of spoken communication.

Ensuring you are facing your partner when talking will give them access to these important visual cues.

Strategy 3: Increase/Improve Lighting and Reduce Background Noise

Enhancing the lighting in a room can be very beneficial to hearing-impaired people. Adequate lighting will increase their ability to access important visual cues. Bright light that is well-distributed across a room will reduce the presence of shadows and glare making observation and visibility of these visual cues much easier. For example, if you are standing in front of a window with the sunlight behind you, it will be difficult for your hearing-impaired partners to observe visual cues including lip reading and facial expressions. In terms of reducing background noise, when you are talking in the kitchen, it would be helpful to turn off the rangehood, kettle, dishwasher and also turn off the radio, music, and not have the taps running.

Strategy 4: Slow Down Your Speech and Project Your Voice

During my communication course, two of the most important strategies we were taught for public speaking were to slow our speech pace and project our voice. By speaking a bit slower, the listener has time to process and understand what was said. You can also add more frequent pauses between phrases to allow the listener to ask questions if they missed what was said. This is very important for hearing-impaired people as they often must interpret degraded speech and spend time processing sound with other information such as visual cues.

Projecting your voice is not only important for volume but will enhance speech clarity and enunciation.

By projecting your voice forward, it can produce a more clear and vibrant sound.

Strategy 5: Rephrase Don't Just Repeat

Rephrasing what you said instead of repeating is a very important communication strategy when communicating with hearing-impaired

people. Sometimes particular speech sounds can be inaudible for hearing-impaired people. If too many sounds in words are inaudible, the words are very difficult to interpret. Therefore, if you repeat the same phrase repeatedly, they will continue to miss those words. This can lead to frustration from the speaker and will not resolve the misunderstanding for the hearing-impaired person.

Rephrasing will use alternative words or sentence structures. This can provide important context or increase clarity which will enhance understanding of the original message and avoid any miscommunication.

To summarise, effective communication strategies can increase understanding for hearing-impaired people. These strategies include reducing distance, facing your partner, increasing lighting, slowing down speech, projecting your voice and rephrasing words. Embracing these strategies will not only decrease misunderstandings and frustrations but will also promote inclusivity for hearing-impaired people by helping them navigate their listening difficulties.

"You are mumbling, speak clearer..."

~ individual with hearing loss



"You don't listen to me when I talk"

~ partner

Students' volunteer experiences with HMA Hearing Aid Bank to support Samoa and Philippine Program

By Macquarie University student volunteers **Ben Kitching et al**

The Samoa Program was established in 2008 by Professor Philip Newall and Cristy Newall to provide hearing aids to children and young adults in Samoa. Since 2008 Philip, Cristy and a team of volunteers have travelled to Samoa over 24 times and have fitted donated hearing aids to over 490 individuals with hearing loss.

Earlier this year following a [Café and Chat presentation by Professor Newall](#) (Link to YouTube Video: <https://youtu.be/fGV7ZSND5ZI>), HMA established the SAMOA volunteering program with some of our regular member volunteers working alongside a team of Macquarie University Speech and Hearing Science bachelor students and Master of Clinical Audiology students.

Here are some of their volunteer experiences:

Ben Kitching (Bachelor of Speech and Hearing Sciences, 3rd year student):

My name is Ben Kitching and I have recently become a volunteer involved in the HMA Hearing Aid Bank Samoa and Philippine Program. My role within the Samoa Program involves the initial sorting, testing, and cleaning of hearing aids that are donated. Hearing aids are first sorted according to varying specifications, such as brand, type, and pairing. Next, a variety of tests are used to assess the basic functionality of the hearing aids. Hearing aids are then thoroughly cleaned, dried, and packed, ready to be sent to Samoa and Philippines.

The entire process is streamlined and extremely rewarding. When I process hearing aids that are not yet ready for use, into hearing aids that are now ready to assist those affected by hearing loss, I always feel a sense of satisfaction. As every hearing aid I process is a donation, I feel appreciation in being able to transform someone's generosity into support to those affected by hearing loss.

I am currently in my final year of the Bachelor of Speech and Hearing Sciences at Macquarie University, looking to pursue a future within audiology. Before volunteering for the Samoa Program, I had never fully observed a hearing aid. Now due to my experience volunteering, I have gained hands-on experience with a multitude of different models and types of hearing aids, as well as testing and maintenance techniques. My experience in volunteering for this program has therefore proven to be extremely beneficial for my future aspirations.

Volunteering for the Samoa Program has also provided an opportunity to meet with other volunteers, allowing myself to build relationships with people that are also interested in helping others with hearing loss. Some volunteers I have connected with are impacted by hearing loss themselves, which has enabled me to listen and learn from their personal experiences. While I have gained experience with the physical and technical aspects of hearing aids, I have also gained a deeper understanding of the personal, emotional, and social aspects of hearing loss.

Daniella Rahal (Bachelor of Speech and Hearing Sciences and Psychology, 4th year student):

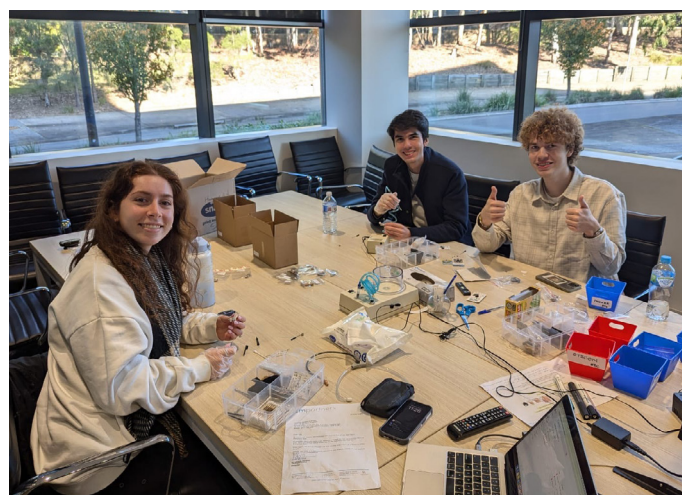
The Samoan and Philippine Hearing Aid Bank Program supported by Hearing Matters Australia (HMA) is a vital initiative aimed at improving the lives of those struggling with hearing loss. HMA volunteers sort, test, and clean donated hearing aids, aiding the remarkable work of audiologists Philip and Cristy Newall

As a current volunteer with HMA, I am actively involved in this impactful program. My role involves sorting, testing, and cleaning donated hearing aids. I joined this program driven by a belief in improving the welfare of those less fortunate. Philip and Cristy's efforts provide a lifeline for people who cannot afford hearing aids and live in regions with unreliable healthcare systems. Their work improves the quality of life for

those in Samoa and the Philippines, enhancing communication, safety, health, and education for individuals struggling with hearing loss. By supporting this program, we are collectively working towards a world where everyone, regardless of their economic background, has access to the hearing care they need.

Max Harpham (Bachelor of Speech and Hearing Sciences, 2nd year student):

I volunteer with the Hearing Aid Bank at Hearing Matters Australia under the Samoa and Philippine program as it allows me to contribute to something that is bigger than myself all while gaining valuable experience in handling hearing devices during my undergraduate studies. I volunteer with a lovely team of students who are so much fun to talk to, we test and clean a broad range of hearing aids across many brands which we pack to be sent to Samoa and the Philippines where they are fitted to people in need by Philip and Crisly Newall.



Daniella Rahal (left), Ben Kitching (middle) and Max Harpham (right) are testing donated hearing aids.

Louise Hu (Master of Clinical Audiology Student, 2nd year):

Volunteering with the Hearing Aid Bank for the Samoa and Philippine program has been a rewarding experience. It's amazing to see how our collective efforts are positively impacting

communities in need by providing the gift of hearing. I'm proud to be part of the HMA team that drives meaningful change and enhances the quality of life for so many people.



Louise Hu (left) and Gilbert Stokes (right) are testing the donated hearing aids.

If you are interested in volunteering with HMA to support this program,

Please contact **Ida Shi** admin@hearingmattersaustralia.org.

If you would like to make a donation to cover some of the operational costs of running **HMA Hearing Aid Bank program**, please kindly donate online <https://www.hearingmattersaustralia.org/membership-products/donate>.

If you would like to support the Samoa program, you can make a donation to the project via the **Rotary Australia World Community Service (RAWCS)** on this website: <https://donations.rawcs.com.au/132-2019-20>.

HEALTHY

Eating

HEALTHY

Listening

By **Kumar Pereira** and **Dr Diana Tang**

H ealthy Eating

Kumar Pereira, a Sri Lankan-born designer, moved to Sydney in 1988. He is a former MasterChef contestant, author, and educator, with interests in gardening, walking, and illustration. His works include “Kumar’s Family Cookbook” and “Paletteables.”



Kumar Pereira

Image source: <https://i0play.com.au/masterchef/participants/season-3/kumar-pereira/pa2006041x60>

Warm Mandarin, Fennel & Haloumi Salad

Ingredients

- 3 large mandarins
- 90 grams haloumi cheese
- ½ medium fresh fennel
- 1 microwaveable packet of brown rice (250 grams)
- 30 ml olive oil (reserve ½ teaspoon)
- 15 ml apple cider vinegar
- Salt & pepper
- 1 cup rocket or mixed salad greens
- ½ cup raw unshelled almonds



Method

1. For the dressing, finely grate the skin of one mandarin and place zest in a bowl. Add the oil (except for the reserved amount) and the vinegar. Stir with a fork to combine.
2. Peel the mandarins, remove most of the loose white membrane and any seeds. Use the potato masher to squeeze the juice of one mandarin and add to the dressing. Discard the pulp.
3. Heat the rice in the frypan with a little water to cook through and transfer to a bowl.
4. Slice the haloumi and add the ½ tsp reserved oil to the pan. Fry the sliced haloumi until lightly browned. Turn over the slices and brown the other side.
5. Roughly chop the almonds, slice the fennel finely and add to the rice.
6. Add the rocket or mixed greens to the rice along with the remaining segments of mandarin and the fried haloumi. Pour over the dressing and combine with a fork.

Healthy Listening

Dr Diana Tang, a dietitian, nutritional epidemiologist and research fellow at Macquarie University. Her work includes understanding the lifestyle risk factors associated with adult-onset hearing loss and tinnitus and reducing the impacts of these conditions on a person's wellbeing.



Image source: <https://www.mq.edu.au/about/about-the-university/vision-strategy/other-university-initiatives/hearing/news-and-events/news/meet-dr-diana-tang-postdoctoral-research-fellow-at-mu-hearing>

Dr Diana Tang

The development of adult-onset hearing loss is influenced by a combination of aging, health comorbidities, lifestyle, environmental, and genetic factors. These factors trigger inflammation and stress in the body. As diet is a modifiable lifestyle risk factor, healthier diets may help to reduce these impacts and the risk of hearing loss developing and progressing.

This may also help to reduce the risk and severity of tinnitus, as hearing loss and tinnitus are closed linked.

Based on research evidence, the overall effect of diet on hearing loss and tinnitus is 'modest' and may only benefit some people. But some is better than none!

Benefits for hearing loss:

- Higher intake of antioxidants such as vitamins A, C, and E
- Higher intake vitamin D
- Higher intakes of fruit, veg, meat
- Chocolate
- Lower intakes of saturated fats and cholesterol
- Higher intakes of poly-unsaturated fats e.g., omega 3s

Benefits for tinnitus:

- Overall healthier diet
- Higher intakes of B vitamins, especially B2, B3, B12
- Higher protein intake
- Adequate water intake
- Higher intakes of iron, zinc

There is also common advice for people with tinnitus is to avoid caffeine and salt but there is no scientific evidence to support that this is effective.



HEARING MATTERS AUSTRALIA

Support from real life experience

HEARING MATTERS AUSTRALIA, INC.

- Operates an **information centre**
- Produces **HEARING MATTERS** as a **quarterly magazine** for members and subscribers
- Runs face-to-face **Cafe and Chat sessions** with various themed topics in relation to hearing care
- Supports and encourages local **HMA groups**
- Maintains an extensive **information service**, with a series of fact sheets on aspects of hearing loss and its management
- **Provides speakers** as part of its extensive Outreach Program
- Acts as an **advocate** to government, industry, and other organisations to make them more aware of issues concerning hearing loss
- Administers a **hearing aid bank**, in conjunction with the Macquarie Health Speech and Hearing Clinic in Sydney and other participating providers

BUDDY PROGRAM

Would you like to get in contact with another deaf or hard of hearing person in your area? HMA tries to introduce members so they can meet for a coffee, conversation, and to share experiences. If you would like to try our buddy program, contact the HMA office (*details on this page*).

DONATIONS

HMA needs your financial support. All donations to HMA, Inc. of \$2 or more are tax deductible.

BEQUESTS

If you wish to make a bequest to HMA, please contact our office.

HEARING MATTERS

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HMA, Inc. thanks and acknowledges our corporate members, who are pleased to assist members and their friends with hearing help.



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