



First edition
of 2024.



Hearing Loss, Tinnitus and Gaming.

When it comes to being exposed to extremely loud sounds at concerts, the consequences for your hearing are well-known. However, new research suggests similar risks are present in video gaming.

A comprehensive review of 14 studies involving about 54,000 adults and children worldwide indicates that average sound levels in video gaming often approach or exceed permissible sound exposure limits, with increased risks correlating to longer exposure durations.

Dr Lauren Dillard, an audiologist and epidemiologist and the study's first author, reveals that regular gamers, compared to non-gamers, are more likely to suffer from tinnitus, measurable high-frequency hearing loss, and hearing difficulties. Tinnitus, experienced as a ringing or buzzing in the ears, affects 10% to 25% of adults.

Gaming is a popular leisure activity worldwide. It is frequently enjoyed at high volumes for extended periods, which is particularly concerning given the prevalence of sudden loud sounds in games, like gunshots or engine noises. The everyday use

of headphones, which bring loud volumes closer to the ears, exacerbates the issue, especially in environments where background noise prompts gamers to increase the volume.

Dr. De Wet Swanepoel, a professor at the University of Pretoria and the University of Colorado School of Medicine who was not involved in the study, emphasises the significance of this research. He notes that, as the World Hearing Organization states, over one billion youths worldwide are at risk of hearing loss due to unsafe listening habits.

Dillard explains that loud sounds cause fatigue to the ear's sensory cells, leading to temporary or, with prolonged exposure, permanent hearing loss. The International Telecommunication Union, in collaboration with the World Hearing Organization, sets the maximum safe sound exposure at 80 decibels for 40 hours per week. However, permissible exposure times decrease as sound intensity increases. For example, a good level of 83 decibels halves the allowable exposure time to 20 hours per week. For children, safer levels are even lower, with a maximum of 75 decibels for the same duration.

The study suggests monitoring sound exposure using smartphone features or apps that measure decibel levels to mitigate these risks. Dr. Janet Choi, an assistant professor at

the University of Southern California's Keck School of Medicine, who was not part of the study, recommends keeping game volume above 60% of the maximum. Choosing headphones that fit well and block background noise can also prevent the need to increase volume. Regular breaks are essential to give ears a rest, and attention should be paid to any changes in hearing.

Dr. Dillard and other experts stress the importance of recognising early signs of hearing loss, such as tinnitus or difficulty hearing high-pitched sounds and following conversations. Dillard suggests using validated apps like [hearWHO](#) to check and monitor hearing health.

If you're experiencing symptoms, contact your doctor or an audiologist, experts said.

If you don't have access to a hearing professional, there are "validated apps, such as, that can help you to check and monitor your hearing," Dillard added.

Adopting safe listening habits early on is crucial, Swanepoel said.

"By doing so, you'll be able to enjoy all the wonderful sounds life has to offer for many years to come," he added. "It's not just about preventing loss; it's about preserving the richness of sound in our everyday lives."

From [Video gamers may be risking hearing loss or tinnitus, study finds](#).



The Fiji Deaf Women's 7s historic gold medal victory at the 2024 Australian Deaf Games in Newcastle, Australia showcased the extraordinary capabilities of individuals with special needs.

Fiji's Minister for Women, Children and Social Protection, Lynda Tabuya, lauded this triumph as a significant demonstration of the team's abilities beyond conventional expectations.

She also highlighted the individual accolade of Ethen Shute, a Deaf player who was named the Best Player of the Tournament. This recognition is seen as an inspiration for others living with special needs, proving their potential to excel in various fields. The minister stressed the importance of focusing on unique abilities rather than disabilities, advocating for an inclusive environment that enables all to thrive.

The Australian Deaf Games is the pinnacle multi-sport event for Deaf people in Australia involving up to twenty sports and attracting competitors from all over Australia and neighbouring Pacific nations.

By [Karishma Kumari](#). From [Deaf women's medal win is a testament...](#)



Age-Related Hearing Loss: Lifestyle Risks and Oxidative Stress.

Age-related hearing loss affects a large proportion of adults aged 60 and older. It has a negative impact on both physical and mental wellbeing, and while hearing interventions can help with the effects of hearing loss, they cannot completely restore normal hearing or halt the progression of age-related hearing loss.

Oxidative stress and inflammation have been identified as potential contributors to this condition. Oxidation is a normal and necessary process that takes place in your body. Oxidative stress, on the other hand, occurs when there's an imbalance between free radical activity and antioxidant activity. When functioning properly, free radicals can help fight off pathogens - pathogens lead to infections. When there are more free radicals present than can be kept in balance by antioxidants, the free radicals can start doing damage to fatty tissue, DNA, and proteins in your body.

By addressing modifiable lifestyle risk factors that exacerbate oxidative stress, there may be an opportunity to prevent hearing loss. Therefore, this narrative review provides an overview of the

major modifiable lifestyle risk factors associated with age-related hearing loss, that is, exposure to noise and ototoxic chemicals, smoking, diet, physical activity, and the presence of chronic lifestyle diseases, and offers an overview of the role of oxidative stress in the pathophysiology of this condition.

Age-related hearing loss is influenced by a combination of aging, health comorbidities, lifestyle, environmental, and genetic factors. These factors promote inflammation-related processes that ultimately lead to oxidative stress. This oxidative stress is believed to cause damage to delicate inner ear structures.

There is a need for public health strategies aimed at reducing oxidative damage to manage the severity and burden of age-related hearing loss. Although some factors contributing to oxidative stress cannot be changed, there are several modifiable lifestyle risk factors that can be managed. These lifestyle risk factors include exposure to noise and ototoxic chemicals, smoking, a lack of regular physical activity, a poor diet, and the presence of chronic lifestyle diseases.

Healthy lifestyle behaviours such as safe listening levels, smoking cessation, a healthy diet, and regular physical activity have been shown to reduce the risk and progression of age-related hearing loss.

Noise Exposure.

According to the World Health Organisation (WHO), exposure to noise louder than 80 dB for more than 40 h per week can result in noise-induced hearing loss, which may progress to age-related hearing loss. Such noises can be heard in occupational, recreational, and environmental settings, including building and construction, mining, concerts, personal music devices, traffic, and home appliances.

Research evidence generally supports the association between noise exposure and hearing loss.

To prevent the risk of hearing damage from noise exposure, the primary recommendation is to minimise exposure to loud sounds and noises. For occupations that frequently expose individuals to noise, regular hearing assessments to monitor staff hearing health should also be considered.

Chemical exposure.

Age-related hearing loss can be exacerbated by ototoxic chemicals. Chemicals such as pharmaceutical drugs, solvents, asphyxiants, and heavy metals can cause damage to the auditory system, including hair cells, spiral ganglion cells, and auditory nerves, as they enter the bloodstream and reach the cochlea or central nervous system.

It may be difficult to avoid exposure to ototoxic drugs as they are often used to treat life-threatening conditions.

Smoking.

Smoking directly increases oxidative stress and triggers an inflammatory response in the body. This is because cigarette smoke contains ototoxic chemicals such as hydrogen cyanide as well as water-soluble components that can circulate throughout the body, causing oxidative stress. As a result, smoking has been shown to increase the risk of hearing loss in a number of studies.

On the other hand, smoking cessation has been shown to increase the concentration of protective antioxidants in the plasma and improve resistance to oxidative challenge.



Dietary Factors.

A high-quality diet such as the Mediterranean diet is a rich source of antioxidants and micronutrients that can inhibit inflammation and reduce oxidative stress. This diet consists of nutrient-rich vegetables, fruit, fish, olive oil, and moderate wine intake. By contrast, an eating pattern that is energy-dense, high in saturated fat, salt, and sugar, and low in fibre, increases oxidative stress and the risk of obesity, type II diabetes, and cardiovascular disease.

Vitamins A, C, and E are suggested to reduce oxidative stress by acting as free radical scavengers.

Alcohol is associated with alcohol-induced oxidative stress. However, red wine is rich in antioxidants.

Exercise.

Compared to other modifiable lifestyle risk factors, fewer studies have explored the relationship between exercise and age-related

hearing loss, but the findings are promising. For example, in one study it was found among women that walking at least 2 hours each week significantly reduced hearing loss risk.

The benefits of regular exercise are likely due to reductions in oxidative stress and inflammation associated with ageing through the management of obesity, sarcopenia, and mitochondrial dysfunction.

Lifestyle diseases.

Engaging in unhealthy lifestyle behaviours has been linked to the development of lifestyle diseases, such as obesity, diabetes, and cardiovascular disease. Studies have shown that the presence of these conditions may heighten the risk of age-related hearing loss.

Associations with other conditions.

The link between hearing loss, cognitive decline, and dementia has gained widespread attention in the last few years. Hearing loss in mid-life has been identified as the biggest modifiable risk factor for a future dementia diagnosis, almost doubling dementia risk.

Further research is needed, but it is thought that hearing loss results in auditory deprivation to the brain, which causes dysfunction such as reduced cognitive performance: remembering things and solving problems.

Live better and hear better.

With an ageing population, the prevalence of age-related hearing loss will increase. Practicing healthy and safe lifestyle behaviours appears to have a role in delaying age-related oxidative damage to the inner ear and can help to preserve auditory cells and inner ear function.

From a paper by Diana Tang, Yvonne Tran and Bamini Gopinath from Macquarie University Hearing; and Piers Dawes from University of Queensland. <https://www.mdpi.com/2076-3921/12/4/878>

NALscribe for live captions.



NALscribe: live captions
Speech-to-text hearing help
Rated 4.7 stars on the Apple App store



Download free today!

NALscribe is a free, easy-to-use live speech captioning tool to help people with hearing difficulties understand speech and conversations.

It is especially beneficial when the person speaking is wearing a mask or face-shield, when communication is more difficult because the lips are hidden and sound is muffled.

[Click here to download from the Apple App store.](#)

The NALscribe app created by National Acoustic Laboratories (NAL), the research division of Hearing Australia, quickly and continuously transcribes speech into large, easy-to-read text on an iPad screen or iPhone in real-time.

Dr Brent Edwards, Director of NAL, says the free app is designed to help improve communication for people with hearing loss, particularly when there are additional barriers such as when masks are worn.”

Michelle Farina found the live captioning to be very beneficial. Any words she missed hearing were captured on the screen.

“I went to the hospital recently and the medical staff were not able to remove their masks and live captioning on a tablet was not available. As a result, they had to painstakingly write down all the questions they needed to ask me.

“It’s a very useful tool in breaking through communication barriers for people with hearing disability,” says Michelle.



Tinnitus Awareness Week.

Tinnitus Awareness Week is observed throughout the world in the first full week of February and the purpose of it is to educate the public about the symptoms of tinnitus and how it affects people.

Tinnitus is the perception of noise or ringing in the ear and 20 percent of people experience it. It's not actually a condition, but a symptom of underlying conditions.

There are many advancements being made, but tinnitus is still under-researched. Surgical implants and alternative medicines could help, but without the proper research, it won't be as effective as it should be.

Affects so many.

Tinnitus affects millions of people and that should be brought up more, not hidden away and forgotten about. Because they're symptoms and not conditions themselves, it's easier to brush it off, but the condition could be worse, and getting it checked out could prolong your life.

Fight against the stigma.

Many people are embarrassed to admit that they have tinnitus. It's such a personal and seemingly subjective concern that talking about it makes

some feel silly and it shouldn't. It should be discussed with healthcare professionals if it affects your way of life.

Free resources.



Getting the most out of your GP consultation

This is a free 40-minute webinar exploring your GP consultation including when to see your GP, what to expect and what happens after the consultation



Assessment and management for tinnitus in adults

This is a free 90-minute webinar aimed to improve your understanding of tinnitus and what influences it



Hearing protection and tinnitus prevention

A free 60-minute webinar on hearing protection and prevention with Jane Heale, Director of ACS custom

Several [free webcasts](#) are provided by Tinnitus U.K., a charitable organisation that offers advice and resources about tinnitus.

[Tinnitus First Aid Kit](#), developed with the British Tinnitus Association, is a website full of useful advice and information for people newly diagnosed with tinnitus.

For audiologists:

[Tinnitus Thermometer](#) is a PDF or online questionnaire that you can use to assess how your clients are experiencing tinnitus at a given moment – and over time.

[Tinnitus Communication Guide](#) suggests some useful questions and communication tips to help you understand your client, express empathy, and give hope.

Ida Institute's online Tinnitus Management course for audiologists and audiometrists includes guidance on using its [tinnitus tools](#).



DEAFNESS FORUM AUSTRALIA

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Dear Parent/Carer/Child/Young Person,

The Murdoch Children's Research Institute is conducting research into the creation of a national registry for deaf or hard of hearing children.

It will be informed by the views and experiences of parents, and children and young people who are deaf or hard of hearing about:

- your experiences
- what you want most for yourself and your future (or for your child and their future)
- what support you/your child may or may not have been offered.

Deafness Forum Australia strongly endorses this project. We invite you to take part in a focus group with other parents and carers, or with other children and young people. Or, you could do a one-on-one interview if you prefer.

Please register your interest [here](#).

You are eligible to take part if you are:

- a parent of a child or young person who is deaf or hard of hearing (under 26)
- a child or young person who is deaf or hard of hearing (8 to 26)

Here is where you can learn more:

<https://www.mcri.edu.au/research/projects/anchor> | anchor@mcri.edu.au

Empowering aged care volunteers.

A new webpage hosts valuable resources aimed at strengthening volunteer training, support, management, and promotion within the aged care sector.

You can find the resources at health.gov.au/topics/aged-care/volunteers.

These comprehensive resources are geared towards addressing various aspects of aged care volunteering, and they encompass:

- Understand why volunteers are vital to delivering person-centred aged care.
- Insights into how to contribute to the wellbeing of our elderly citizens.
- Step-by-step guidance on how to embark on a fulfilling journey as an aged care volunteer.
- Resources that empower providers and managers to optimise volunteer support and management.
- Access training materials and resources tailored specifically for aged care volunteers.





We are delighted to announce that Professor Kelvin Kong will deliver the 25th Libby Harricks Memorial Oration at Parliament House Canberra on the evening of Monday 25 March 2024.

Professor Kong is Australia's first indigenous surgeon, a Worimi man, and an ardent advocate for hearing health. He was honoured as the NAIDOC Person of the Year in 2023 for [his work with Indigenous children at risk of hearing loss.](#)

“Australia still has the worst ear disease rates in the world. Chronic suppurative otitis media affects from 40% to 85% of children in Indigenous communities,” Professor Kong said.

“It is disheartening discussing my mob on an international scale because of the dichotomy that exists with ear disease here.”

“We often ignore the role of racism in health outcomes,” he said. “Living life as an Indigenous person can be traumatic from the day you’re born. From the events which you see and the way in which your family are treated.

“Eliminating racism in health is paramount because it leads to reduced trust in health care systems in vulnerable communities, which perpetuates health disparities.”

Hosted by the national peak body for the 4 million Australians living with hearing loss, [the oration series](#) features renowned speakers from around the world, gaining international recognition for its exceptional presentations.



The venue will be the Parliamentary Theatrette, 6pm Monday 25 March 2024.

All are welcome but seating will be limited.

For more information,
info@deafnessforum.org.au

Biomedical innovation for hearing loss detection wins double honours.

Researchers and clinicians from the University of Western Australia were honoured twice in the same week for their innovative biomedical device concept and vision to transform paediatric hearing tests and accelerate diagnosis and early intervention.

The Sound-Asleep invention won both the 2023 Perth Biodesign Course, and the Freo Startup Fest Golden Ticket event.

Hearing loss in infants and children is a major problem resulting in delays in speech and language development, which if not identified early has a potentially long-term negative impact on the individual and families.

While prompt detection is crucial for early intervention, diagnosing hearing loss during the critical age period (under 3 years old) is difficult as toddlers are usually uncooperative and unable to undertake play-based hearing tests.

The Sound-Asleep concept is at the early prototype stage. It is intended to be worn by a child during their natural sleep at home, automatically collecting and processing diagnostic data overnight or while they nap, with the results collected and wirelessly transmitted back to the clinic for review by an audiologist.

Team member, University of Western Australia's Dr Peter King, who was part of the Sound-Asleep team said, "Operating during natural sleep cycles also allows for extended periods of data collection which significantly increase accuracy and reliability."

Super Chicken.



A rooster's crow is deafening if you stand too close. So how do they protect their own hearing?

When a rooster's beak is fully open, as it is when crowing, a quarter of the ear canal completely closes, and soft tissue covers 50% of the eardrum.

This means roosters are not capable of hearing their own crows at full strength.



Swimmer's Ear is an infection of the outer ear canal often caused by trapped water. It is an inflammatory condition usually triggered by bacteria or fungi.

The infection, medically known as acute otitis externa, typically occurs when water remains in the ear canal for extended periods, creating a moist environment that encourages bacterial growth. It is common among swimmers, divers, and other water sports enthusiasts.

The severity of Swimmer's Ear can range from mild irritation to acute pain and can be influenced by factors such as water quality and frequency of exposure.

What are the symptoms?

Trapped Water: If you notice water lingering in your ears after participating in water activities, this could be an early indicator of Swimmer's Ear.

Frequent Ear Infections: The moist environment in the ear canal can become a breeding ground for bacteria, leading to recurring infections. This risk is especially elevated for those who engage in water sports in varying water conditions, from chlorinated pools to natural bodies of water with varying levels of cleanliness.

Immediate care after swimming.

Dry your ears thoroughly and carefully after swimming to prevent moisture build-up. This step is crucial in avoiding the conditions that lead to Swimmer's Ear.

Ear plugs.

Use ear plugs during swimming activities. Ear plugs that are designed to keep water out while allowing sound in, offering both protection against Swimmer's Ear and maintaining auditory awareness.

Avoid harmful practices.

Avoid inserting objects like cotton swabs into your ears, as this can damage the delicate skin of the ear canal, increasing the risk of infection.

Routine ear health maintenance.

Maintain proper ear hygiene and consider using ear drops formulated for swimmers. Regular check-ups with a healthcare provider can also be beneficial, especially if you are prone to ear issues.

By adopting these preventive measures, including the use of SurfEars, you can effectively reduce your risk of developing Swimmer's Ear.

From <https://surfears.com/swimmers-ear/>

Special Edition: Aboriginal Women in Advocacy and Hearing Healthcare.



"We love the fact that we can help deliver a free mobile Ear Clinic to our own mob in their community without causing any unnecessary stress."

Kassy and Chontae Hayden are two proud Ballardong (Noongar) and Badimaya (Yamatji) sisters from Perth. They work for the Earbus Foundation.

You can read about Kassy and Chontae in a future special edition of the One in Six newsletter.

We invite you to contribute to this special edition that will highlight Aboriginal Women in Advocacy and in Hearing Healthcare.

We hope to gather diverse, compelling stories that reflect the impact and contributions of remarkable women.

You may be able to suggest potential profiles of Aboriginal women whose work has been influential.

By featuring their profiles in our newsletter, we aim to amplify their voices and achievements to a broad audience, enhancing the visibility and impact of their work.

Please get in touch with us with any suggestions: hello@deafnessfrom.org.au

Real carers, real stories.

"Keeping a good work, life, care balance is essential if I am to continue providing proper care and support, and Carer Gateway was able to help me do this."

"I would highly encourage carers to browse through the website, there's something for everyone."



Aakriti is one of ten carers who have shared their story about caring through [Real Carers, Real Stories – In Their Own Words](#), a digital photographic exhibition. The exhibition features photographs, videos and stories available in a selection of languages.

Genetic testing for children's hearing loss.

Researchers have been delving into the genetic factors that contribute to hearing loss, particularly in newborns, infants and children. With advancements in genetic testing, healthcare professionals can now identify specific genetic changes linked to hearing loss.

When the cause of the hearing loss remains unclear, genetic testing can help identify contributing genetic factors.

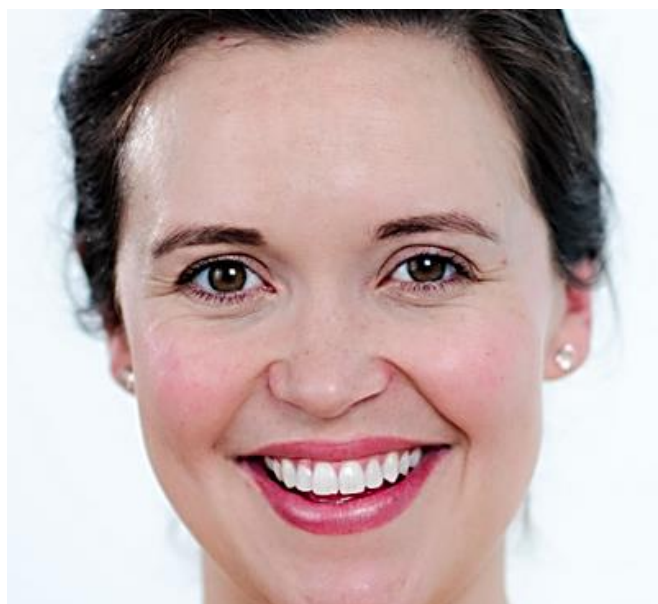
Children with unilateral hearing loss (in one ear) may face an increased risk of developing hearing loss in their other ear over time. Genetic testing can provide information about this risk.

Early identification of a genetic cause of hearing loss results in timely interventions, which are crucial for a child's spoken language and speech development. Genetic testing allows healthcare professionals to tailor plans based on the specific genetic information.

Identifying specific genetic factors can help healthcare professionals develop tailored treatment plans, leading to better life outcomes for children with hearing loss. Understanding the genetic basis of hearing loss empowers families to make informed decisions about their child's healthcare journey.

Data from genetic testing contributes to ongoing advancements in the field of paediatric hearing loss.

From Genetic Testing Is Appropriate for Some Paediatric Patients with Unilateral Hearing Loss or Single-Sided Deafness at [ENT Today](#).



Get a free preview of Read Our Lips Australia online lipreading course to see what it's all about.

[Visit our website](#) and register your details to access Lesson 1 and decide if it is right for you.

Read Our Lips Australia is self-paced learning that is dedicated to supporting those with hearing loss and their families, by improving their quality of life through increased communication skills.

**Start Lipreading Now.
8 Lessons. 6 Months Unlimited Access.**

Contact us at support@readourlips.com.au or visit www.readourlips.com.au

For NDIS participants.

You can claim the cost through from your National Disability Insurance Scheme plan. How you claim the course fee will depend on your individual goals and how your plan is managed. The fee may be claimed under Capacity Building for improved social & community participation; or alternatively under Core Supports for individual capacity building training.

Read Our Lips Australia was created with funding from the Commonwealth Department of Social Security and NDIS.

Everyone should have equal access to government services.



In an Australian first, Queensland's Department of Transport and Main Roads partnered with Better Hearing Australia to roll out portable hearing loop devices.

The devices have been rolled out to more than 90 sites across Queensland which offer transport and motoring services to the community.

Portable hearing loops enable people with hearing aids or cochlear implants to connect to the device via Telecoil (T-Coil) technology to reduce background noise and improve speech clarity.

“The roll out of hearing augmentation loop devices across our network is an important step on our journey to achieve this goal, and we are proud to be leading the way across Government departments,” said Julia Hopkins-Martin, Acting General Manager of the Customer Services Branch at Department of Transport and Main Roads (TMR).

“Everyone should have equal access to government services, and we are committed to improving the experience for all Queenslanders,” she said.

Tony Whelan, Business Manager at Better Hearing Australia Brisbane, believes this is the first roll-out of portable hearing loop devices across an entire service centre network in Australia and certainly a first for the Queensland Government.

“TMR's leadership and commitment to improving accessibility for the one in six Australians currently experiencing hearing loss sets a new benchmark in inclusive customer experiences,” he said.

Better Hearing Australia Brisbane is a disability peak representative organisation for people with hearing loss in Queensland.

The [Portable SmartLoop Counter Pack](#) provided to 94 TMR customer service centres is available as an all-in-one solution for any customer service counter from [LoopMe by BHA](#).

BHA has campaigned for increased adoption and awareness of the benefits of hearing loops as it is currently one of the best hearing augmentation solutions widely available.

New two-way text communication devices are also available for TMR customers in North Brisbane and Townsville. The wireless design enables real-time text conversation between customers and staff and features two screens which face each other, allowing for easy and private communication between users. Available for use in the Caboolture and Garbutt Customer Service Centres, these devices support customers who are d/Deaf, have a hearing or speech requirement or other barriers to communication when accessing services in-person.

Customers who are d/Deaf or find it hard to hear or speak to hearing people can also contact TMR through the National Relay Service.

From [Better Hearing Australia](#).



Building Blocks Advice From Other Parents.



Dear Parents,

if your baby or child has been diagnosed with a hearing loss, we know how you are feeling now.

We have all experienced those feelings of isolation and sadness when our children were diagnosed. The diagnosis can come as a shock.

In the weeks, months and years ahead, however, you will discover that your baby or child will do all those things that you dreamt about before they were born. He will smile at you, talk to you, go to school, play sport and find a job. She will marry and have children of her own. Life won't always be easy, but with your love and assistance, your baby will grow up to lead a happy, fulfilled and independent life.

The information in this parent-to-parent section was put together for you using the knowledge and experiences of parents in our online support groups. We want you to know that you are not alone. We have all learnt so much from other parents. We have called it 'Building Blocks' as you are beginning to build a happy and successful future for your baby.

Briefly...

The main goal of early identification of hearing is access to communication. Cuddling, comforting, rocking, smiling and singing are all forms of communication.

Parents are natural advocates for their children, and you should play an active role in planning your baby's future.

Take one step at a time – great journeys start with a single step.

Get as much information as you can from many different sources. Parents who receive unbiased information and support will make the right decisions for their baby and family.

Take the time you need to make decisions – you don't need to rush. However, it is not a good idea to take months.

Ask questions and make sure you understand the answers. Ask your baby's doctors and audiologists to write down the main points they have discussed with you.

Speak up about your concerns and worries.

Store all the information you have about your baby's hearing loss in one place.

Allow people to help and support you and your family – ask for help when you need it.

Be gentle on yourselves – take time out.

Visit Aussie Deaf Kids website for more of [Building Blocks: Advice Form Other Parents](#).

Exciting New Bluetooth Technology on the Horizon

By Shari Eberts for [Hearing Matters](#)

We all dream of the day when we can walk into any venue, public space, or theatre and connect our hearing devices seamlessly to the sound system.

No need to pick up listening devices with neckloops, extra streamers or delayed audio. No hassle. Only clear sound transmitted directly to our existing technology. Auracast believes this day is coming, not just for people with hearing devices, but for everyone.

Auracast is a new Bluetooth technology that allows users to tap into any Auracast-equipped sound system for better hearing. The receiving device does not matter. It will work with Auracast-equipped hearing aids, cochlear implants, and everyday wireless headphones. When fully rolled out, it could be used at a movie theatre, a lecture hall or even to share the song you are enjoying with a friend.

I had a chance to try it out at the International Federation of Hard of Hearing People World Congress, and it was encouraging. The latency (the delay between when the sound is picked up by the microphone and the processed signal is played back) is far superior to standard Bluetooth. This increased speech could help turn many everyday listening devices (including our smartphones) into hearing enhancers.

Over time, as Bluetooth shifts to its new [Auracast](#) version, we may no longer need both Bluetooth and T-coil. Progress like this is wonderful - the more hearing technology goes mainstream, the better it will be for people with hearing loss - but in the eagerness to move forward, let's make sure nobody is left behind.

For now, T-Coils remain a required feature.

The industry must continue to support both technologies during the transition period - which may last 5 to 10 years.

Auracast is exciting and provides many potential benefits for people with hearing loss. But many of these benefits are likely years away as the technology is fine-tuned, and the full range of Bluetooth devices and public venues transition to this new model.

For now, T-coils remain a critical accessibility tool for people with hearing loss.

Let's hope the industry is taking note.



Shari Eberts is the founder of [Living with Hearing Loss](#), a popular blog and online community for people with hearing loss. Her book, [Hear & Beyond: Live Skillfully with Hearing Loss](#), (co-authored with Gael Hannan) is the ultimate survival guide to living well with hearing loss.



A talented young tennis player from Sydney's North Shore refuses to let her hearing challenge limit her dreams of tennis success.

Ashlee Narker said she was born with "severe to profound" hearing loss.

Growing up in a sports-loving family with three older brothers, Ashlee was exposed to various sports but it was the individuality of tennis that captured her heart.

"You have to rely on yourself and your ability to be able to beat your opponent."

Ashlee's recent achievements in the sport speak volumes about her dedication and talent. She surprised many by reaching the semifinals of the ITF tournament in Caloundra, QLD as a wild card entry. This earned her a full scholarship to Iowa State University USA, where she is set to begin her college journey this month. At just 18 years old, she has climbed to the 1,083rd spot in the Hologic WTA Tour rankings.

Ashlee refuses to see it as a disability and emphasises that the biggest hurdle she had to overcome was her own lack of confidence in being different from others.

"I am only just realising now, who cares about what other people think? Just go out there and do what you want to do. For me, sound is no barrier."

But sound does play a crucial role in tennis. It provides valuable auditory cues that help in reacting to fast serves and groundstrokes. Different strokes generate distinct sounds based on spin and speed, making it challenging for Ashlee to anticipate her opponent's moves. She has learned to rely on visual cues, honing her observation skills.

Ashlee's ability to compete at an elite level can be attributed to her persistence and determination. According to her brother Lachlan, her refusal to accept "no" as an answer has been a driving force behind her success.

Born into a family with a history of hearing challenges, Ashlee wears two behind-the-ear hearing aids. Tennis, with its rapid pace and sudden stops, poses challenges for wearing external hearing aids.

Ashlee has enhanced her visual acuity and kinaesthetic sense. She has learned to rely on her intuition and feel for the ball, which has improved her reaction and anticipation time.

Her message to young athletes with disability is one of encouragement and determination. She believes that success in sports is achievable as long as there is hard work and commitment. She advises young athletes to ignore the doubts and stereotypes of others, urging them to change perceptions about what they can achieve in their chosen sport.

After graduating college, she aspires to spend a year in Europe playing in pro tournaments and aiming for a spot in the Top 100.

From [Ashlee Narker won't let profound hearing loss define her tennis success](#).



App boosts ear health and mental wellbeing in Indigenous communities.

An app makes it fun for Aboriginal children to enhance their hearing and mental health.

The SoundSmiles app was developed by a Monash University researcher, Professor Christopher Lawrence in collaboration with Curtin University and Ear Science Institute Australia. Prof Lawrence is a Wadjak/Ballardong Noongar man and Associate Dean (Indigenous) at Monash University's Faculty of Information Technology.

"The impacts of ear disease can drastically change the trajectory of a child's life. Young people who have hearing loss are more likely to experience social and emotional problems," Professor Lawrence said.

Aboriginal children experience ear disease and hearing loss at rates at least ten times higher than non-Aboriginal children.

Prof Lawrence said SoundSmiles capitalises on the increasing use of mobile technologies by children in Aboriginal communities.

"The kids enjoy using tablets and, through the SoundSmiles app, they'll learn skills and develop better connections with expert services which impact their ear and mental health positively."

Along with building children's independence with health-promoting behaviours, the app intends to increase their digital literacy skills.

SoundSmiles will also have dashboards for teachers, parents and clinicians. Teachers will receive up-to-date health information about individuals and the whole class, with the app also recommending classroom strategies based on the students' daily responses.

Co-investigator on the SoundSmiles project and mental health interventions expert Professor Bronwyn Myers from Curtin University said there is genuine desire within remote communities to build connections around mental and ear health.

Ear Science CEO Adjunct Associate Professor Sandra Bellekom said, "We are proud at Ear Science to bring together our strong links with the Pilbara and Southwest community and our links across academia to co-create inventive solutions that will improve quality of life for Indigenous children. Research that has real-life impact is our mission."

SoundSmiles was awarded almost \$1.5 million from Western Australia's Future Health Research and Innovation Fund to further develop and test the app, deliver it within the Pilbara and South-West communities who co-designed it, and then release more broadly for other areas across Western Australia.

Read more about [SoundSmiles application](#).



Advertisement.

Many Australians with hearing loss don't seek treatment, but help is available.

Having a hearing test can help to detect the early signs of hearing loss, so you can keep your hearing healthy for longer.

Hearing aids are not the only treatment for hearing loss. Following a hearing check, a range of options may be discussed including communication strategies, assistive listening devices and phone apps.

If you are concerned about your hearing, or the hearing of someone you love, book a hearing check today.

Talk to your health professional or visit health.gov.au/hearing for more information.

*Get Help With Your Hearing is an initiative of the Australian Government.

Improved long-term outcomes for teens with cochlear implants.

According to new research, adolescents with cochlear implants have better outcomes in terms of language, academic performance, and quality of life.

Ivette Cejas and colleagues from the University of Miami conducted a study including 188 children with bilateral severe to profound hearing loss with cochlear implants. Long-term educational outcomes and quality of life were assessed in adolescents over 13 years after implantation.

The researchers found that academic performance was better for children with cochlear implants compared to those without with similar levels of hearing loss. Children who received cochlear implants before age 18 months had the largest benefits, and performed at or above age and gender norms for language and academic achievement. Better quality of life on the Paediatric Quality of Life Inventory was reported for adolescents with cochlear implants compared to those without. Children who received cochlear implants early scored higher across all three domains on a condition-specific measure (Youth Quality of Life Instrument-Deaf and Hard of Hearing) compared to those without.

"These findings highlight the importance of early identification and intervention," the authors wrote.

By Elana Gotkine. More information: Ivette Cejas et al, Cochlear Implantation and Educational and Quality-of-Life Outcomes in Adolescence, JAMA Otolaryngology-Head & Neck Surgery (2023). DOI: [10.1001/jamaoto.2023.1327](https://doi.org/10.1001/jamaoto.2023.1327)

Karen A. Gordon et al, Long-term Language, Educational, and Quality-of-Life Outcomes in Adolescents After Childhood Cochlear Implantation, JAMA Otolaryngology-Head & Neck Surgery (2023). DOI: [10.1001/jamaoto.2023.1329](https://doi.org/10.1001/jamaoto.2023.1329)

Australian Deaf Games wraps up after a week of competition.

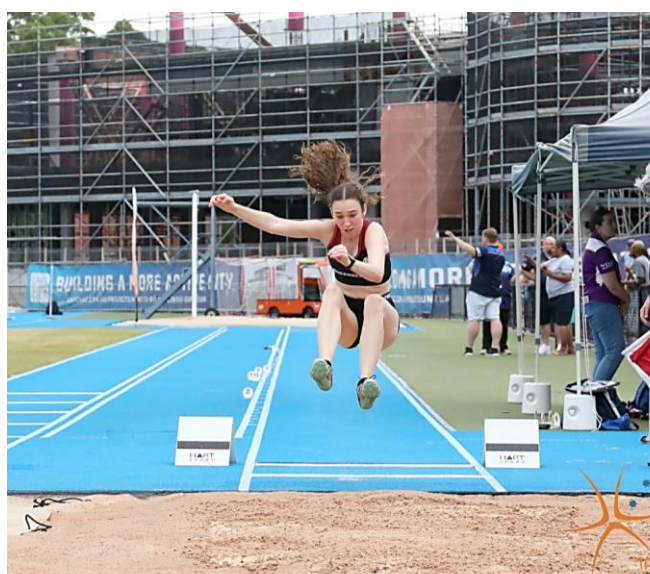


Newcastle and Lake Macquarie NSW hosted the biennial athletic competition that feeds into the global Deaflympics, the next of which will be hosted in Tokyo in 2025.

The Australian Deaf Games is the pinnacle multi-sport event for Deaf people in Australia involving up to 20 sports and attracting more than 1000 competitors and participants from all over Australia, some neighbouring Pacific nations and, potentially, one of two other overseas countries.

All athletes, most officials and the majority of visitors are Deaf or hard of hearing.

The Games gives Deaf and hard of hearing people an opportunity to be exposed to a national competition format that promotes the development of Deaf sport.



Australian Government Hearing Services Program consultations.

The Department of Health and Aged Care is committed to enhancing the Australian Government Hearing Services Program and is seeking input from the hearing sector and clients to make informed decisions about proposed improvements.

The Hearing Services Program funds service providers to provide hearing services – including assessments, rehabilitation and devices – to eligible Australians with hearing loss.

The Program's Voucher scheme is delivered by a network of over 300 service providers in more than 3,000 locations across Australia.

To be eligible for the program's Voucher scheme a person must be an Australian citizen or permanent resident over the age of 21 years and are:

- A Pensioner Concession Card holder
- A DVA Gold Card holder
- A DVA White Card (for hearing-specific conditions)
- A spouse of a person in one of the above categories
- A member of the ADF
- Referred by the Disability Employment Service.

You can check your eligibility [online](#).

Throughout 2024, there will be several opportunities to provide feedback on the Government's proposed improvements to the Hearing Services Program.

These proposed improvements have taken into account stakeholder feedback and recommendations from previous reviews, reports, and parliamentary inquiries. These improvements aim to:

- Prioritise and improve client outcomes
- Simplify program requirements
- Reduce provider and government administrative burden
- Improve program transparency and accountability, and
- Improve program data to support evidence-based decision-making.

The Department of Health and Aged Care will seek feedback on potential changes to the:

- schedule of Service Items and Fees
- program standards
- arrangements for maintenance and repairs
- technologies and device categories available
- device minimum specifications; and
- device supply arrangements.

Your participation and feedback are vital in shaping the Australian Government Hearing Services Program's future.

If you would like to assist Deafness Forum Australia in making submissions to the review, drop us a line to hello@deafnessforum.org.au



Australian Government
Department of Health and Aged Care



DEAFNESS FORUM AUSTRALIA

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A Curious Case of Voluntary Tensor Tympani Muscle Contraction.

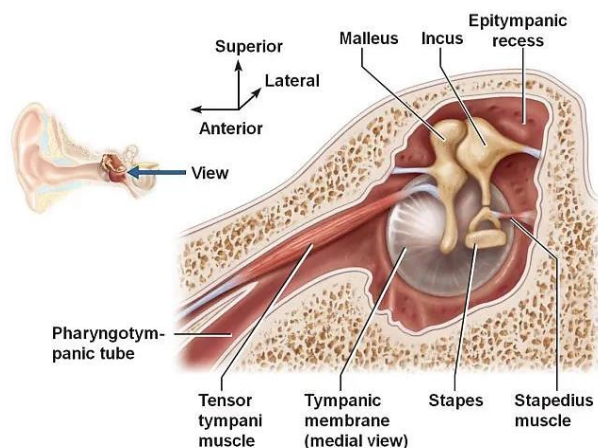
In the intricate world of human anatomy, there are certain elements that rarely make their presence felt, often lurking in the background of our bodily functions. One such enigmatic player is the tensor tympani muscle, the largest muscle nestled within the middle ear. Its activation is an exceptionally rare occurrence, with only a scant number of scientific papers shedding light on its intriguing audiometric effects.

The tensor tympani muscle is a small muscle located in the middle ear, specifically in the bony canal called the tympanic cavity. Its primary function is to dampen or reduce the intensity of sounds that enter the ear.

When exposed to loud noises or sounds, the tensor tympani muscle contracts reflexively. This contraction alters the tension on the eardrum (tympanic membrane) and makes it less sensitive to loud sounds. Essentially, it's like turning down the volume in your ears to

protect your hearing from sudden, potentially damaging sounds.

This muscle plays a role in a process known as the "acoustic reflex," which is a natural protective mechanism to prevent excessively loud sounds from causing harm to your delicate inner ear structures, including the cochlea and hair cells responsible for hearing. The tensor tympani muscle, along with another muscle called the stapedius muscle, contributes to this reflexive response.



A rare case.

A 27-year-old man visits a hearing clinic complaining of tinnitus. Now, tinnitus is very common – a perception of noise when there is no external cause for it. This man was found to have the ability to voluntarily induce bilateral

tinnitus – the ability to contract his tensor tympani muscles in both ears at will. And the result was to induce tinnitus.

He was referred to a medical team that conducted a series of audiograms under varying conditions. They compared the patient's hearing abilities at rest with those during the maximum contraction of the tensor tympani muscle.

During the voluntary contraction of the tensor tympani muscle, the patient experienced a profound shift in his auditory perception. There was a noticeable hearing loss, especially at lower frequencies.

In addition to the changes in hearing, the team also observed a substantial increase in middle-ear impedance during muscle contraction, meaning more resistance to sound travelling through the middle ear that makes sounds seem quieter or muffled. The finding raises intriguing questions about the role of the tensor tympani muscle in our hearing apparatus.

The enigma persists.

The precise role of the tensor tympani muscle in middle-ear physiology remains a mystery. Some theories suggest that it may play a role in dampening sounds generated during the process of mastication, the act of chewing. However, our understanding of this enigmatic muscle is far from complete.

Voluntary control over the tensor tympani muscle is thought to be a rare phenomenon. This discovery opens up new avenues for exploring hearing disorders, offering fresh insights into conditions that have eluded scientific understanding.

In the world of medicine, it's often the peculiar cases that lead to groundbreaking discoveries.

From an article in [PubMed](#).



Know someone who deserves their own copy of **One in Six?**

Let us know at hello@deafnessforum.org.au

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