

# 'EAR 'TIS



Newsletter for Audiometry Nurses

Welcome to the issue of the ANAA Inc. newsletter  
2023 Summer Issue

Summer2022

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The sensitive ears of the greater bilby, a small Australian mammal, help it hear potential predators—even when its head is down in the dirt looking for food.

PHOTOGRAPH BY GREG HAROLD, AUSCAPE, MINDEN PICTURES

[Wacky Weekend: Animal Ears \(nationalgeographic.com\)](https://www.nationalgeographic.com)

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# President's Report

Hi everyone,

Welcome to another year of audiometry!

Lots of activity within our association & in our workplaces.

The Committee met this week & are updating flyers & the Constitution to bring it in line with recent Fair Trading changes. It's a slow process but we're chipping away at it!

We have 7 new students who will be starting the first subject 241 at ACN. This is fabulous to see great interest & growth in our audiometry nursing profession.

We have considered linking into a new nursing website which provides networking for all nursing professions & educational organisations. The Nurse Break & Nurses Collective was founded by a nurse who wanted a secure platform for nurses to be able to network in a safe environment. More to come on this when it's set up.

I have been attending the HHSASC meetings second monthly. The Hearing Health Sector Alliance- Indigenous Ear Health working group is led by Professor Catherine McMahon at Macquarie university.

We are giving our support to apply for a research grant that is addressing racism in the hearing health sector. This will be a 2 year project setting up a matrix for the model of care.

The next CoNNMO meeting will be held on 5<sup>th</sup> May via Zoom. More to come on latest nursing organisations soon.

The ANAA Inc. Committee is excited to let you all know that the next annual conference will be held in Parramatta at the Park Royal Hotel. It will be a 3 day conference including workshops & guest speakers. There will be more to come over the next few months but please save the dates 18-20<sup>th</sup> October. Parramatta has become a vibrant hub for dining, shopping & entertainment.

Unfortunately there will be a slight price rise as conferences in the city area are costly. We try our best to keep costs down for members as much as possible, so start saving the pennies & blocking out leave! There will be a discounted accommodation rate so stay tuned. You can upload conference details on My Health Learning when the draft program is done.

Thank you to our committee for the efforts so far in attending meetings & also for the work over the coming year to keep our organisation going strong.

Please check the audiometry website for any further updates regarding meetings & conference.

I'm off for 3 weeks leave to visit my daughter in Thailand, but will be back rested, rejuvenated & ready for the busy year ahead.

Take care

Tracy





# Audiometry Nurses of Australia Association Inc.

Conference 2023

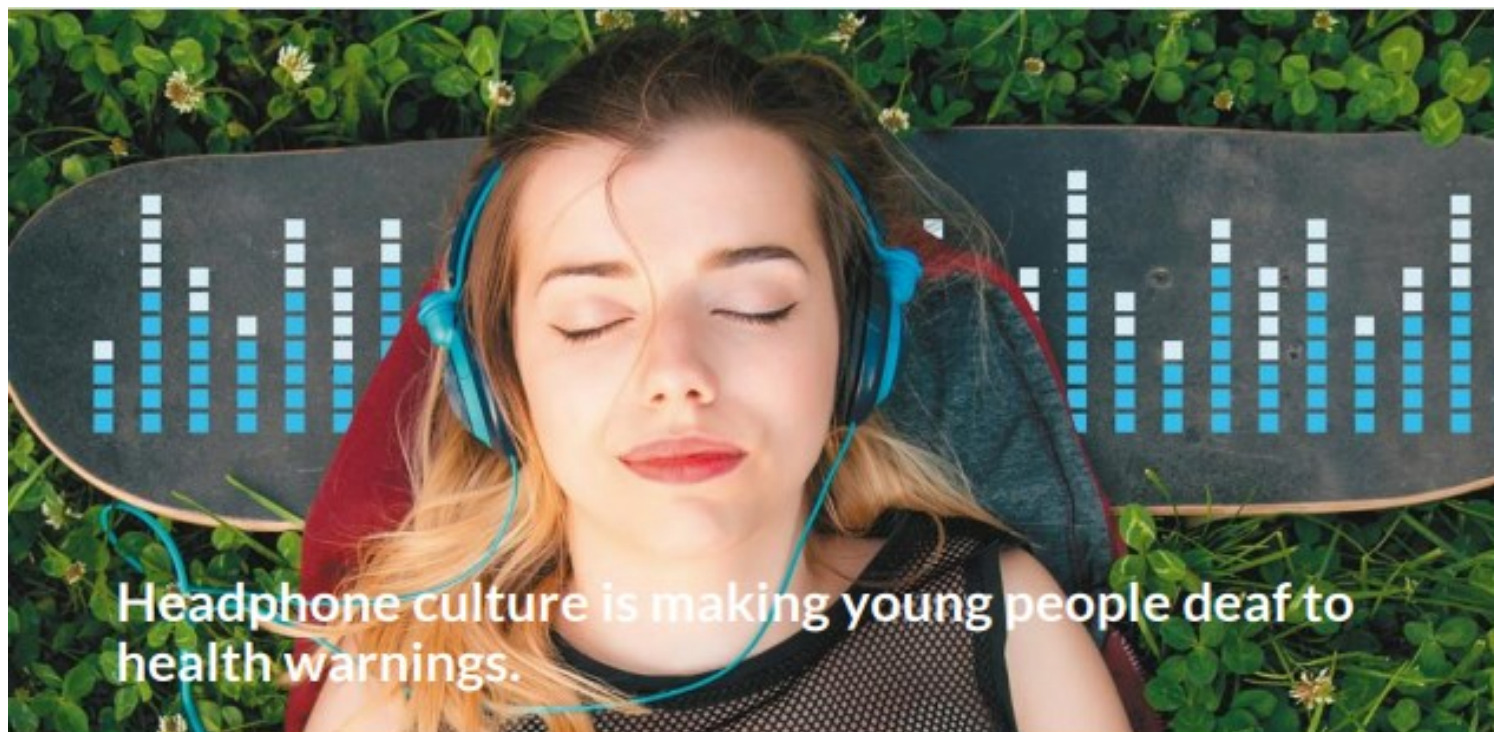
October 18th, 19th and 20th October



Park Royal

Parramatta -Sydney





## Headphone culture is making young people deaf to health warnings.

**Lengthy exposure to loud noises is affecting the hearing ability of a growing number of people, especially those who are part of the "headphone culture". But few are listening to the experts' concerns.**

By Guy Kelly for The Sydney Morning Herald.  
Image by Shutterstock.

If Nicole Russell could turn back the clock, she'd probably turn down the volume, too. In 2004, when she was seven years old, she picked up an Apple iPod, plugged in a pair of the standard white headphones, pressed play, cranked it up and formed a habit she'd enjoy for "at least five hours a day" for the next decade. She'd listen in the morning, on the way to school, during breaks, even as she fell asleep.

A few years later, she was in the car – listening to music, of course – with her father, Dave, when he told her to turn the volume down. "He was like, 'Niki, what the hell?'" Russell, now 24, says. "It made me so embarrassed, I'd just say, 'But it has to be this loud ... it's the only way I can hear it.' I didn't know there was a problem then. I thought it was just me."

Throughout her school years in California – where the problem was made worse when headphones, used with iPads, became

mandatory for many lessons, as they are in some schools here – Russell struggled to hear in class and spoke loudly, often resulting in being shushed, "which isn't exactly great for self-esteem". When she watched television, she would turn the volume up high and add subtitles to help her follow.

Eventually, while at university, doctors diagnosed her with hearing loss in both ears, though for some reason it was slightly worse in her left and said there could only be one cause: the excessive loud music.

"I was told it had been accumulating over years, just getting worse," Russell says. "I didn't want it to be true, but it was a relief to know and be able to change things."

And change things she did. The volume came down; her awareness of noise went up. But the damage is going nowhere. She will have hearing loss for life.

The main form of preventable hearing loss in Australian adults is noise-induced, increasingly from lengthy exposure to loud music in young people. A [report by the World Health Organisation](#) claims that nearly half those aged between 12 and 35 – or 1.1 billion young people – are at risk of hearing loss "due to prolonged and excessive exposure to loud sounds, including music they listen to through personal audio devices".



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The world we live in is louder than ever, but many people are exacerbating the strain on their ears by constantly listening to music or watching videos on smartphones.

"If you have a particularly noisy commute and turn the music up to hear it, try listening to it at that volume in a quiet room. It's painfully loud. I'd like to say it was improving, but people just generally don't know about safe listening levels, and in a culture where headphones are everywhere, that's dangerous," explains Francesca Oliver, an audiology specialist.

"Biologically, our ears have not adapted to withstand the volume of noise most of us encounter – or subject ourselves to – almost every day. For example, anyone using headphones should listen at less than half the maximum volume for no more than half an hour at a time, but how many people know that, let alone implement it? If you have a particularly noisy commute and turn the music up to hear it, try listening to it at that volume in a quiet room. It's painfully loud. So imagine what that's doing to your ears."

There is nuance to the statistics, of course: genetic factors, such as mutations in inner ear sensory cells, make some people more susceptible to hearing loss – especially the age-related kind. (It's believed the causes of this are 35 to 55 per cent genetic.) But while much is still being done to tackle going deaf in old age, the focus of many audiologists has shifted to avoidable, noise-related hearing loss.

"Another problem is that people are often quite reluctant to admit they have hearing loss, especially the young," says Oliver. Put plainly: the human race is losing its hearing.

### **How loud is too loud?**

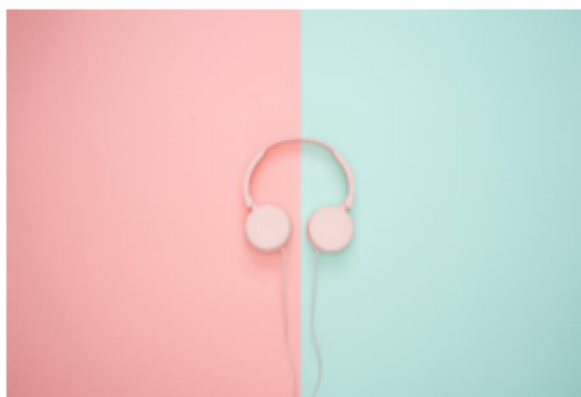
As anybody who has ever fought with an elderly person over the volume control on a television knows, there are competing definitions for what constitutes "loud", but fortunately audiologists, such as Oliver and Howard, have a more concrete answer: most agree the "safe sound threshold" sits at around 80 to 85 decibels (dB) – somewhere between a vacuum cleaner and an alarm clock.

Where it gets more complex is when time is introduced. After eight hours' exposure at 85dB, hearing is damaged. That's fine, nobody listens to an alarm or Hoover for eight hours.

Most agree the "safe sound threshold" sits at around 80 to 85 decibels (dB) – typically somewhere between a vacuum cleaner and an alarm clock. Where it gets more complex is when time is introduced.

The scale is then exponential: each increment of 3dB doubles the pressure, therefore halving the safe exposure time. An iPod at full blast is around 100dB, the same as a nightclub or hairdryer. Just 15 minutes of that can result in hearing loss.

Moving up the scale, a rock concert is about 113dB – though some groups, like Motorhead, proclaimed "the loudest band on earth" for reaching 130dB in 1984, push it far more – meaning well over a minute can be dangerous. A pneumatic drill is harmful after one second. A gun blast is even quicker. Even gym weights crashing can reach 140dB, enough to give permanent damage in one go.



Sound is a force that can destroy more than ear-hair cells. One of the loudest noises ever recorded, the Krakatoa volcanic eruption in 1883 – estimated at 180dB at a distance of 160 kilometres – didn't just burst eardrums within 65 kilometres, it was heard as two rifle shots in Alice Springs, 3600 kilometres away.

Slowly, governments and industries are starting to understand this information and legislate accordingly, but in reality, it's up to us.



# Water precautions for prevention of infection in children with ventilation tubes (grommets)

✉ Daniel Moualed, Liam Masterson, Sanjiv Kumar, Neil Donnelly

Authors' declarations of interest

Version published: 27 January 2016 Version history

<https://doi.org/10.1002/14651858.CD010375.pub2> 

## Abstract

Available in [English](#) | [Español](#)

## Background

Following middle ear ventilation tube (tympanostomy tube or grommet) insertion, most surgeons advise that a child's ears should be kept dry during the immediate postoperative period. Following the initial period some surgeons will permit swimming or bathing, whereas other surgeons will recommend ongoing water precautions. A large number of studies have been conducted to explore the association between water exposure and ear infections in children with ventilation tubes, however a range of differing conclusions exist regarding the need for water precautions and there is wide variation in clinical practice.

Black-tailed jackrabbits live in deserts and grasslands in the southwestern United States and Mexico. Up to seven inches long, the animal's ears help regulate its body temperature on hot days.

PHOTOGRAPH BY TIM FITZHARRIS, MINDEN PICTURES



A close-up photograph of a caracal cat standing in a grassy field, looking towards the right. The cat has light brown fur, white underparts, and distinctive black-tipped ears.

To assess the effectiveness of water precautions for the prevention of ear infections in children with ventilation tubes (grommets), at any time while the tubes are in place.

The Cochrane ENT Trials Search Co-ordinator searched the ENT Trials Register; Central Register of Controlled Trials (CENTRAL 2015, Issue 8); PubMed; EMBASE; CINAHL; Web of Science; Clinicaltrials.gov; ICTRP and additional sources for published and unpublished trials. The date of the search was 1 September 2015.

Randomised controlled trials recruiting children (0 to 17 years) with ventilation tubes and assessing the effect of water precautions while the tubes are in place. We considered all forms of water precautions, including behavioural (i.e. avoidance or swimming/bathing restrictions) and mechanical (ear plugs/moulds or hats/bands).

We used the standard methodological procedures expected by Cochrane. Our primary outcome measures were episodes of otorrhoea and adverse effects; secondary outcomes were antimicrobial prescriptions for ear infections, ventilation tube extrusion, surgical intervention to remove ventilation tubes and hearing outcomes.



# Main results

Two randomised controlled trials recruiting a total of 413 patients met the criteria for inclusion in our review; one study had a low risk of bias and the other study had a high risk of bias.

## Ear plugs versus control

One study recruited 201 children (aged six months to six years) who underwent myringotomy and ventilation tube insertion. The study compared an intervention group who were instructed to swim and bathe with ear plugs with a control group; the participants were followed up at one-month intervals for one year. This study, with low risk of bias, showed that the use of ear plugs results in a small but statistically significant reduction in the rate of otorrhoea from 1.2 episodes to 0.84 episodes in the year of follow-up (mean difference (MD) -0.36 episodes per year, 95% confidence interval (CI) -0.45 to -0.27). There was no significant difference in ventilation tube extrusion or hearing outcomes between the two study arms. No child required surgical intervention to remove ventilation tubes and no adverse events were reported.

## Water avoidance versus control

Another study recruited 212 children (aged three months to 12 years) who underwent myringotomy and ventilation tube insertion. The study compared an intervention group who were instructed not to swim or submerge their heads while bathing with a control group; the participants were followed up at three-month intervals for one year. This study, with high risk of bias, did not show any evidence of a reduction or increase in the rate of otorrhoea (1.17 episodes per year in both groups; MD 0 episodes, 95% CI -0.14 to 0.14). No other outcomes were reported for this study and no adverse events were reported.

## Quality of evidence

The overall quality (GRADE) of the body of evidence for the effect of ear plugs on the rate of otorrhoea and the effect of water avoidance on the rate of otorrhoea are low and very low respectively.



## Authors' conclusions

The baseline rate of ventilation tube otorrhoea and the morbidity associated with it is usually low and therefore careful prior consideration must be given to the efficacy, costs and burdens of any intervention aimed at reducing this rate.

While there is some evidence to suggest that wearing ear plugs reduces the rate of otorrhoea in children with ventilation tubes, clinicians and parents should understand that the absolute reduction in the number of episodes of otorrhoea appears to be very small and is unlikely to be clinically significant. Based on the data available, an average child would have to wear ear plugs for 2.8 years to prevent one episode of otorrhoea.

Some evidence suggests that advising children to avoid swimming or head immersion during bathing does not affect rates of otorrhoea, although good quality data are lacking in this area. Currently, consensus guidelines therefore recommend against the routine use of water precautions on the basis that the limited clinical benefit is outweighed by the associated cost, inconvenience and anxiety.

Future high-quality studies could be undertaken but may not be thought necessary. It is uncertain whether further trials in this area would change the findings of this review or have an impact on practice. Any future high-quality research should focus on determining whether particular groups of children benefit more from water precautions than others, as well as on developing clinical guidelines and their implementation.

As winter approaches, Eurasian red squirrels grow thick tufts of hair on their ears to stay warm.

PHOTOGRAPH BY JACK FOLKERS, BUITEN - BEELD, MINDEN PICTURES



Review Article

# The quality and accuracy of internet information on the subject of ear tubes

Thomas C. McKearney<sup>a</sup>  , Richard M. McKearney<sup>b</sup>

## Abstract

### Objective

The World Wide Web is a commonly used source of health information for patients. The objective of this study is to assess the quality and accuracy of information on the internet regarding ear tubes and their insertion.

### Methods

Websites were identified from Google, Yahoo and MSN using the search terms 'myringotomy', 'tympanostomy', 'grommet' and 'ear tubes'. The first 40 consecutive websites from each search engine using each search term were potentially eligible for the study. Quality of information was assessed using the DISCERN instrument and readability using the Flesch Readability Formula and Flesch-Kincaid Grade Level Readability Formula. As the DISCERN instrument is subjective, both authors rated each website. Specific facts related to ear tubes were identified from each website such as the indications for and complications of ear tubes which were evaluated for accuracy and consistency.

## Conclusions

Overall, internet information regarding ear tubes is of mixed quality and the readability is generally low. Certain topics such as the number of patients that require repeat ear tube insertion and advice on bathing and showering with ear tubes were poorly described.



***If you haven't already joined the Ear and Hearing Health Group on Rural Health Pro here's snippets of what you may be missing.***



**Rebecca Stone** (NSW RURAL DOCTORS NETWORK LTD)

19 January 2023 at 12:17 PM

Hello members,

*Tinnitus Awareness Week (6th - 12th February)*

Tinnitus Awareness Week is observed 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 15 to 20 percent of people experience it. It's not actually a condition, but a symptom of an underlying condition. These can be age-related, related to hearing loss, ear injury, or a circulatory system disorder. The symptoms include ringing, buzzing, clicking, roaring, hissing, or humming in the ear and it varies depending on the person.

One in three people in Australia live with tinnitus and one in six experience it constantly.

The impact of tinnitus can be devastating. In 2017, the International Tinnitus Journal reported that 45% of tinnitus sufferers experience anxiety and 33% have major depression. Yet, despite its ubiquity, tinnitus is poorly understood and frequently underestimated as a cause of suffering and distress.



**Ear & Hearing Health group** — **Rebecca Stone** (NSW RURAL DOCTORS NETWORK LTD)

Edited 18 January 2023 at 9:54 AM



**\*\*FREE WEBINAR\*\***

[TAFE NSW EAR TRAIN](#)

[TAFE NSW EARTRAIN - Workforce Upskilling for school screenings](#)

NSW Rural Doctors Network (RDN) and the Aboriginal Health and Medical Research Council (AH&MRC) of NSW invite you to attend the free webinar: *TAFE NSW EARTRAIN: Workforce upskilling for school screenings*.

[About the webinar:](#)

RDN is funded by the Australian Government Department of Health to administer the delivery of medical outreach services to regional, remote and Aboriginal communities in NSW and the ACT. Join us as we discuss the various resources for school ear and hearing health screenings, understanding and interpreting results from screenings and increasing the development of health skills. The significance of early intervention and detection of ear and hearing concerns are imperative for Aboriginal and Torres Strait Islander people cognitive learning and development.

[Presenters](#)

Jo O'Malley - Manager, EarTrain, TAFE NSW

Jean Tsembis - Audiologist and Teacher, EarTrain, TAFE NSW



**Ear & Hearing Health group** — **Rebecca Stone** (NSW RURAL DOCTORS NETWORK LTD)

Edited 18 January 2023 at 9:54 AM



**\*\*FREE WEBINAR\*\***

[Sound Scouts](#)

[Sound Scouts - Development of Hearing Screenings and Results of School Screenings](#)

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[Presenter](#)

Carolyn Mee, Founder, Sound Scouts



Deafness Forum Australia regularly publishes a great professional newsletter to subscribe to if you don't already.

This month is a fabulous edition one publicising World Hearing Day.

I like to regularly include articles from this publication.







# How to Know If Your Restaurant Is Too Loud

Restaurant noise levels can have a huge impact a guest's dining experience.

**There's no question that restaurants have grown louder over the past few decades, and people from guests to critics have taken notice. Loud restaurant noise is not only irksome for guests but also dangerous to staff. Let's take a look at some cost-effective ways you can reduce the noise levels in your restaurant.**

But what's to blame for the increase in restaurant noise? There are a few different factors at play. One is design: Modern restaurant design favours open spaces and hard surfaces amplify sound, while open kitchens only add more noise to a restaurant space. Surfaces like marble countertops, brick walls, and bare table surfaces also reflect sound — these design elements leave nowhere for sound to go.

Another factor is sound's impact on table turn rates and alcohol consumption. Loud music with a faster rhythm can encourage guests to eat faster. There's even [some evidence](#) that noisy spaces encourage people to [drink more and faster](#). While these things might be good for your bottom line, it's not worth irritating guests and potentially harming your staff in the long run.

Let's take a look at ways of reducing noise levels.

## 1. Keep background music in the background

Music is an integral part of your restaurant's atmosphere. Background music should largely remain in the background. Keep an eye on the volume, and leave room for your guests to chat without having to raise their voices.

Always reduce music volume if someone complains, and if you get multiple complaints that music is too loud, reassess your baseline volume and bring it down permanently.

## 2. Sound-proof your chairs

The sound of chair legs scraping against the floor of your restaurant isn't a pleasant one. You can easily help to eliminate this sound by putting rubber caps or fuzzy floor protector pads on the bottoms of your chair legs.

## 3. Utilise curtains, area rugs, and tablecloths

Windows and glass reflect sound, and curtains can soften noise levels. Rugs and carpeting in high-traffic areas help absorb the sound of staff and guests moving about. Tablecloths reduce the sound of clattering cutlery and glasses.

## 4. Keep machinery out of dining areas

Relocate noisy machines away from dining areas or utilise sound-absorbing materials on walls and ceilings.

## 5. Create a barrier to kitchen noise

If you already have an open kitchen concept, separating kitchen noise from your dining areas will be challenging. Make sure kitchen doors are kept closed when possible; you can even soundproof kitchen doors to muffle loud sounds.

## 6. Let your walls and ceilings absorb the noise

The walls and ceilings of your restaurant may be the biggest culprits of amplifying sound. Install sound-absorbing ceiling tiles, wall panels or fabric to prevent sounds from bouncing around.

From [Toast](#)



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# Early Hearing Detection and Intervention

EDITOR: Christine Yoshinaga-Itano<sup>1</sup>

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Early Hearing Detection and Intervention



HEALTHCARE

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The consequences of undiagnosed hearing loss in early childhood can be significant, with negative impacts on a child's language, cognitive and socioemotional development, as well as on their literacy and vocational potential. The effect on the family of an affected child can also be profound. As a result, children with hearing loss are at high risk of requiring specialized education and experiencing difficulty or an inability to function in society without support.

Early hearing detection and intervention (EHDI) programs can help alleviate the negative consequences of childhood hearing loss. Universal newborn hearing screening (UNHS)/EHDI programs have been established in many high-income countries, but are less common in low- and middle-income countries.

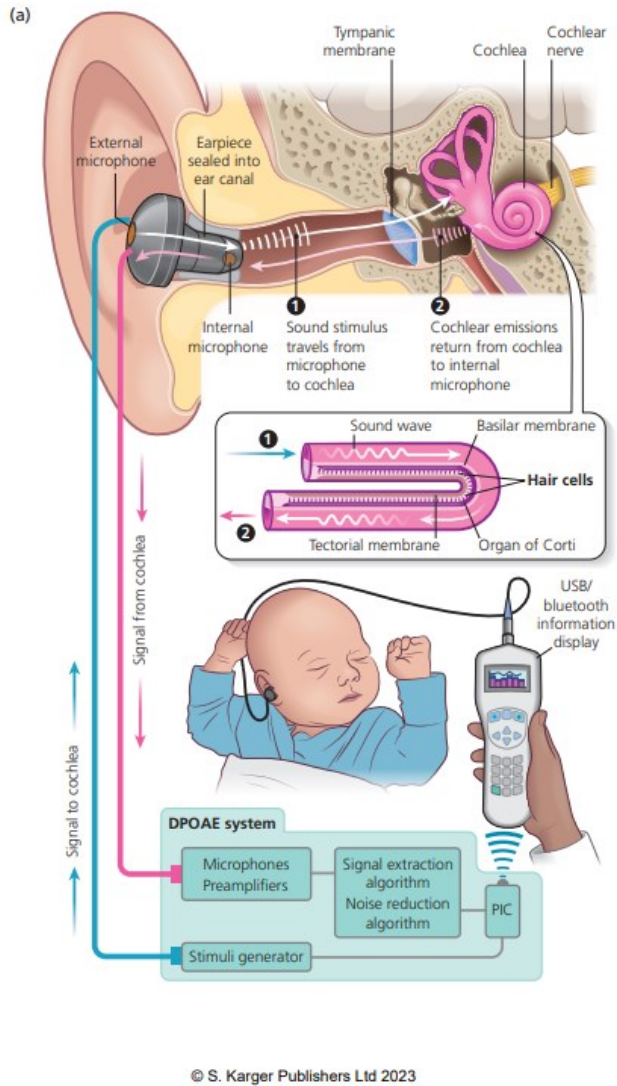
## Screening technologies

It has been possible to screen the hearing of newborn babies within the first few days of life since the early 1990s. Two different technologies are used to conduct neonatal hearing screening (Figure 1.1).

**Automated otoacoustic emission (aOAE)** screening uses automated technology to assess the function of the outer hair cells in the cochlear while a newborn baby or a child is lying still, either in natural sleep or with mild sedation. A probe containing a microphone is placed in the ear canal, clicks or pure tones are sent through it and a machine measures the type of echo the sound causes in the outer hair cells. aOAE testing is unable to detect hearing loss resulting from issues beyond the outer hair cells in the auditory pathway, for example, auditory neuropathy spectrum disorder (ANS) where the lesion occurs somewhere in the auditory nerve.

**Automated auditory brainstem response (aABR)** screening measures whether the auditory nerve transmits sound from the inner ear to the brainstem, and how loud sounds have to be for the brain to detect them. This automated test can indicate if the brain is not receiving the information in a clear way. aABR screening is conducted while the infant is asleep, preferably in natural sleep. Electrodes are placed on the child's head to measure brain activity and the sound is presented either through earphones or a probe placed into the ear canal.





#### Early Hearing Detection and Intervention

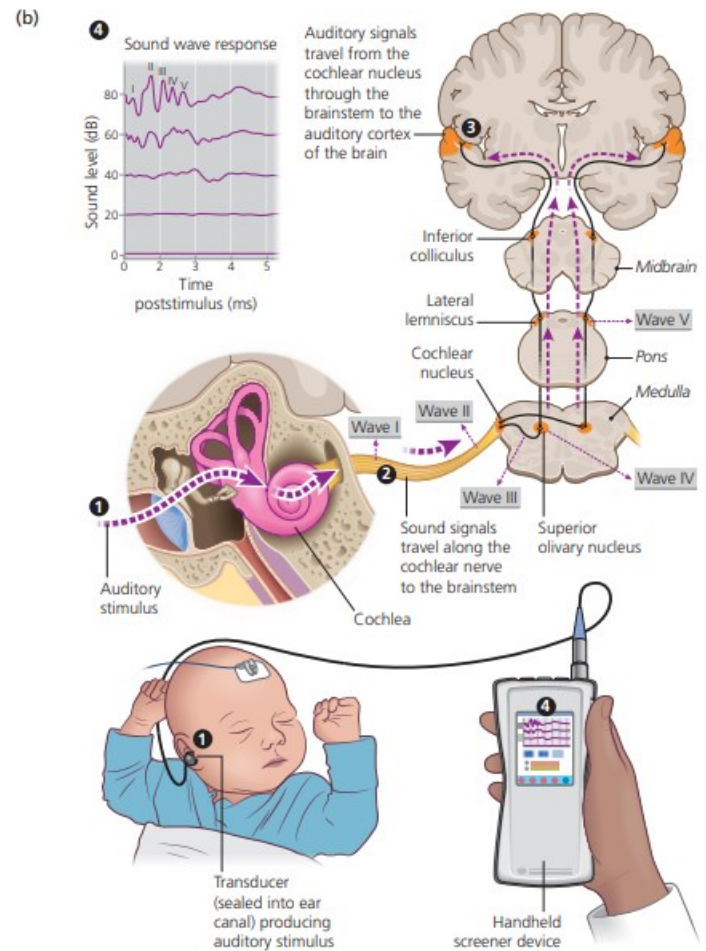


Figure 1.1 Newborn infants undergoing (a) aOAE and (b) aABR screening.

The hearing screen is typically completed in 1–4 minutes per ear. Many newborn hearing screening programs use both aOAE and aABR to test a baby's hearing, although some programs use one type of testing only. Because the screening tests are not 100% accurate, if families suspect that their child is not hearing well, even if newborn screening was not suggestive of hearing loss, they should be referred for further testing.

Diagnostic audiological evaluations for confirmation of hearing loss after newborn hearing screening include diagnostic ABR and OAE testing and are discussed in more detail in Chapter 10.

### Integrated systems

Although technology provides a means of screening all newborns shortly after birth, newborn hearing screening itself represents only the first step in a complex EHDI system and care pathway. High-quality EHDI programs have been successfully established and implemented in many countries throughout the world but integrating such programs with timely enrollment into early intervention services has not been as successful, increasing the likelihood that children who are deaf or hard of hearing (DHH) may not achieve age- or cognitively-appropriate development targets.

A high-quality integrated EHDI program should aim to achieve the EHDI 1–3–6 benchmarks set by the Joint Committee on Infant Hearing (JCIH): screen by 1 month, identify by 3 months and enroll into early intervention services by 6 months. Ideally, where resources allow, the benchmarks should be 1–2–3, with screening by 1 month, identification by 2 months and enrollment in early intervention by 3 months.

The EHDI model illustrated in Figure 1.2 represents an integrated system, with all elements being core to achieving successful outcomes for a child and their family. All high-quality systems should be underpinned by the following key principles.

- Infants who are referred after newborn hearing screening should receive timely audiological and medical assessment and management, using best practices in assessment and diagnosis.

Early Hearing Detection and Intervention

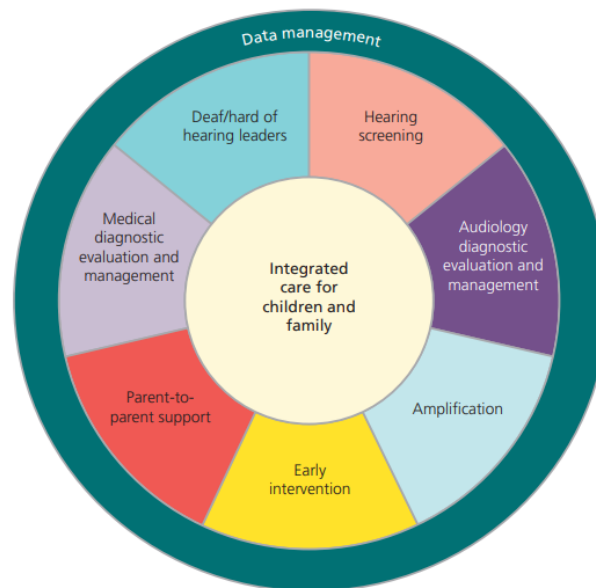


Figure 1.2 Elements of an integrated EHDI system.

- With parental agreement, infants should be provided with appropriately fitted amplification and be referred for cochlear implantation when they meet both audiological criteria and national candidacy criteria (see Chapter 11).
- Skilled support should be available for families and for the assessment and promotion of spoken and/or visual language, speech and/or sign phonology, language (spoken/signed), communication and socioemotional development in young children, following confirmation of hearing loss.
- Accurate and effective data capture and management systems (discussed in greater detail in Chapter 8) should enable quality assurance of the program and effective tracking throughout the full pathway, including tracking the longitudinal developmental milestones of identified children.
- All personnel delivering the services should have appropriate skills and competencies and access to training and ongoing professional development.
- Parents and professionals who are DHH should be fully involved in strategic planning and at all levels of program delivery.
- There should be a good flow of communication across the pathway that promotes effective management by professionals and a coordinated experience for families.



### Key points – newborn hearing screening and early hearing detection and intervention

- Integrated EHDI systems can help alleviate the negative consequences of congenital or early childhood hearing loss.
- Newborn hearing testing is only the first step of a complex EHDI system.
- Two technologies are used to screen hearing in newborn babies, aOAE testing and aABR testing.
- Comprehensive integrated EHDI systems aim to meet the 1–3–6 benchmarks, namely that all infants are screened for hearing loss by 1 month of age, affected infants are identified by 3 months and are enrolled into early intervention/therapeutic services by 6 months. When EHDI 1–3–6 has been accomplished, systems should strive for 1–2–3 benchmarks (screen by 1 month, identify by 2 months and enroll in intervention by 3 months).



# Tinnitus Awareness Week

[Link for download of Brochure](https://www.ruralhealthpro.org/servlet.shepherd/document/download/069Mp000000cHsgIAE?operationContext=S1)

<https://www.ruralhealthpro.org/servlet.shepherd/document/download/069Mp000000cHsgIAE?operationContext=S1>



**Rural Health Pro**  
POWERED BY RDN

**TINNITUS**  
AUSTRALIA

## TINNITUS IN CHILDREN.

### FACT SHEET

Just as adults can experience tinnitus (noises in our ears or head unrelated to an external source) so too can children. If children are worried by their tinnitus, support is available and beneficial.

#### WHAT TO LOOK FOR

Children as young as three can reliably describe tinnitus, if they experience it, and asking will not make their tinnitus worse. Asking a child if they hear any noises that they think mummy or daddy can't hear in a non-leading manner will give them the opportunity to explain what they hear, have their experience validated and to be supported. Children often describe tinnitus in ways that reflect sounds within their environment or experience, such as buzzy bees, growling tigers, choo choo trains or wind in the leaves. How a child experiences their tinnitus can be influenced by how they perceive it (scary or just normal), their developmental age and the aspects of their lives that are affected.

If a child experiences tinnitus and is worried by it, it may affect their emotional and mental wellbeing. Children who experience tinnitus may have difficulty falling asleep, may prefer to sleep with a radio or the television playing and they may become more irritable, frustrated or emotional. Some children describe having difficulty concentrating at school or not liking being in either very noisy or very quiet environments. Others may also stop participating in activities that they previously enjoyed or avoid new activities. Some children with tinnitus appear to have trouble listening, following instructions or participating in conversations and may have difficulty on hearing tests. When children are troubled by a condition such as tinnitus their parents and family can also be affected.

#### WHAT TO DO

If your child does experience tinnitus and is bothered by it, it is important to listen to their description and reassure them. It is also important to see your doctor and an audiologist who understands tinnitus in children. They can perform a hearing test, to check there are no underlying hearing or ear health issues that need to be addressed, and organise specialist referrals, where required. If no further referrals are needed, they can work with you and your child to develop strategies that will help them habituate to their tinnitus (reduce their awareness and distress). Strategies can include tinnitus education, sound enrichment, emotional support and relaxation strategies.

As with adults, children's experiences of tinnitus and associated distress can increase during times of stress, such as family breakdowns, times of transition or bullying. Understanding this pattern can help to reduce fear and worry. Seeking help from your child's doctor, audiologist and/or psychologist may assist in recognising and managing these periods.

Caring for a child who is distressed by their tinnitus can be worrying and in rare cases either you or your child may feel as you are having trouble coping. If either you or your child is in need of urgent assistance please call Kids Help Line 1800 551 800 or Life Line 13 11 14. While the nature of their advice will not be specific to tinnitus, their expertise in all



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Mummy, why is there yelling in my head? There are happy buzzy bees and scary zombies.

areas of mental health will ensure that you and your child are supported at times of greatest need. This service also offers a range of resources and webchat support options for children and their carers. All other non-urgent persistent matters should be discussed with your audiologist or medical practitioner. Tinnitus Australia is available online and via the Hearing Line to offer extra support.

#### FURTHER READING

Baguley, D. M. et al (2013). Troublesome tinnitus in childhood and adolescence: Data from expert centres. *International Journal of Pediatric Otorhinolaryngology*, 77(2), 248-251. <https://doi.org/10.1016/j.ijporl.2012.11.009>

Kentish, R. C., Crocker, S. R., & McKenna, L. (2000). Children's experience of tinnitus: a preliminary survey of children presenting to a psychology department. *British Journal of Audiology*, 34(6), 335-340. <https://doi.org/10.3109/03005364000000149>

Kentish, R. et al. (2015). Tinnitus in children. Practice guidance. *British Society of Audiology*. <http://www.thebsa.org.uk/wp-content/uploads/2015/03/2015-Paed-Tin-Guidelines-FINAL.pdf>

Rosing, S. N. et al. (2016). Prevalence of tinnitus and hyperacusis in children and adolescents: A systematic review. *BMJ Open*, 6(6), Article e010596. <http://dx.doi.org/10.1136/bmjopen-2015-010596>

Smith, H. et al. (2019). A scoping review to catalogue tinnitus problems in children. *International Journal of Pediatric Otorhinolaryngology*, 122, 141-151. <https://doi.org/10.1016/j.ijporl.2019.04.006>

Tegg-Quinn, S. et al. (2020). Reflections and perceptions of chronic tinnitus during childhood and adolescence. *International Journal of Pediatric Otorhinolaryngology*, 138, Article 110258. <https://doi.org/10.1016/j.ijporl.2020.110258>

Tegg-Quinn, S. et al. (2021) Reflections on how tinnitus impacts the lives of children and adolescents. *American Journal of Audiology*, in press

This factsheet is intended to be a guide of a general nature, having regard to general circumstances. The information presented should not be relied on as a substitute for medical advice, independent judgement or assessment by a healthcare professional, with consideration of the particular needs and individual circumstances. This factsheet reflects information available at the time of its preparation, but its currency should be determined having regard to other available information. Tinnitus Australia disclaims all liability to users of the information provided.

Updated: March 2021

To be reviewed: March 2024

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Version 1.0

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#### HEARING LINE

**1300 242 842**

For hearing, social & emotional  
support, & general enquiries,  
Monday to Friday,  
9am - 5pm

#### LET'S CONNECT



#MoreThanJustEars  
#MoreThanJustDevices

**TINNITUS AUSTRALIA IS A  
SOUNDFAIR INITIATIVE**





# EARBUS FOUNDATION OF WESTERN AUSTRALIA

## CLINICAL PRACTICE & DUTY OF CARE

Earbus Foundation's core values are to be open and honest, loyal and supportive and brilliant. These values form the cornerstone of our culture, supporting clinical governance that is critical to continuous quality and safety improvement.

Our practice environments across the state are open, inclusive, and encouraging of education, professional development, research, sharing of ideas and excellence of clinical practices.

Ours is a culture where continuous analysis, cooperative development and inter-professional respect allow successes to be celebrated. Mistakes are treated as opportunities for learning and improvement.

Clinical governance is an approach to continuous quality and safety improvement, for which all staff share responsibility and accountability. The welfare of our clients is the primary objective of all outreach work with a focus on achieving positive outcomes.



Clinical Governance – Doctor and Nurse Audiometrist working together to deliver high quality primary care

Our Patron, Ear Nose and Throat Surgeon Professor Harvey Coates, is the lead author of the highly regarded Aboriginal Ear Health Manual and this, along with the OM Guidelines and region specific ear health Protocols, form the key references for our clinical work.

Since 2014 Earbus Foundation has held Annual Clinical Roundtables as a forum for reviewing clinical practice, outcomes, research and issues. These forums include Ear, Nose and Throat specialists, Paediatric Audiologists, General Practitioners, Nurse Practitioners and Registered Nurses who review clinical protocols, medications and Earbus procedures for Outreach trips. This process is overseen by the Earbus Director, Clinical Services to ensure that changes are implemented in a timely way.

Throughout the year, ENT Specialists who work in partnership with Earbus continue to provide training modules for clinical upskilling and also provide clinical leadership for nurses, nurse practitioners, General Practitioners and Audiologists. All our clinicians maintain professional registration and comply with all requirements relating to their professional registration. This core group of consultant clinicians are committed to ensuring the best level of care is provided in community. These clinicians ensure that the Aboriginal Medical Services, Royal Flying Doctor Services and other Health Care providers who partner with Earbus are up-to-date with clinical outcomes for children seen by the team.



Professor Harvey Coates and Audiology Team



Earbus 2020 Planning Day



## Prevention of deafness and hearing loss

The Seventieth World Health Assembly,

Having considered the report on prevention of deafness and hearing loss;<sup>1</sup>

Recognizing that 360 million people across the world live with disabling hearing loss, a total that includes 32 million children and nearly 180 million older adults;

Acknowledging that nearly 90% of the people with hearing loss live in low- and middle-income countries, which often lack resources and strategies to address hearing loss;

Concerned by the persistent high prevalence of chronic ear diseases, such as chronic suppurative otitis media, which lead to hearing loss and may cause life-threatening complications;

Acknowledging the significance of work-related, noise-induced hearing loss, in addition to issues related to recreational and environmental noise-induced hearing loss;

Aware that unaddressed hearing loss is linked with cognitive decline and contributes to the burden of depression and dementia, especially in older adults;

Noting the significant impact of ear diseases and hearing loss on the development, ability to communicate, education, livelihood, social well-being and economic independence of individuals, as well as on communities and countries;

Aware that most of the causes of hearing loss are avoidable with preventive strategies; that the interventions available are both successful and cost-effective; but that, despite this, most people with ear diseases and hearing loss do not have access to suitable services;

Recalling resolution WHA48.9 (1995) on prevention of hearing impairment, and resolution WHA58.23 (2005) on disability, including prevention, management and rehabilitation;

Recalling also the *World report on disability 2011*, which recommends investment in improved access to health services, rehabilitation and assistive technologies and the WHO global disability action plan 2014–2021,<sup>2</sup> based on that report's recommendations;

Mindful of the Sustainable Development Goals in the 2030 Agenda for Sustainable Development, specifically Goal 3 (Ensure healthy lives and promote well-being for all at all ages) with

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<sup>1</sup> Document A70/34.

<sup>2</sup> See document WHA67/2014/REC/1, Annex 3.

its target 3.8 on achieving universal health coverage, which implicitly recognizes the need for persons with disabilities to have access to quality health care services, and recognizing that the targets of Goal 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all) explicitly mention persons with disabilities, and that unaddressed hearing loss greatly hinders their education and academic outcomes;

Appreciating the efforts made by Member States and international partners in recent years to prevent hearing loss, but mindful of the need for further action,

1. URGES Member States, taking into account their national circumstances:

- (1) to integrate strategies for ear and hearing care within the framework of their primary health care systems, under the umbrella of universal health coverage, by such means as raising awareness at all levels and building political commitment and intersectoral collaboration;
- (2) to collect high-quality population-based data on ear diseases and hearing loss in order to develop evidence-based strategies and policies;
- (3) to establish suitable training programmes for the development of human resources in the field of ear and hearing care;
- (4) to ensure the highest possible vaccination coverage against rubella, measles, mumps and meningitis, in line with the immunization targets of the global vaccine action plan 2011–2020, and in accordance with national priorities;
- (5) to develop, implement and monitor screening programmes for early identification of ear diseases, such as chronic suppurative otitis media and hearing loss in high-risk populations, including infants, young children, older adults and people exposed to noise in occupational and recreational settings;
- (6) to improve access to affordable, cost-effective, high-quality, assistive hearing technologies and products, including hearing aids, cochlear implants and other assistive devices, as part of universal health coverage, taking into account the delivery capacity of health care systems in an equitable and sustainable manner;
- (7) to develop and implement regulations for the control of noise in occupational settings, at entertainment venues and through personal audio systems, as well as for the control of ototoxic medicines;
- (8) to improve access to a variety of ways of communicating through promoting alternative methods of communication, such as sign language and captioning;
- (9) to work towards the attainment of Sustainable Development Goal 3 (Ensure healthy lives and promote well-being for all at all ages) and Goal 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all) in the 2030 Agenda for Sustainable Development, with special reference to people with hearing loss;



2. REQUESTS the Director-General:

- (1) to prepare a world report on ear and hearing care, based on the best-available scientific evidence;
- (2) to develop a toolkit as well as provide the necessary technical support for Member States in collecting data, planning national strategies for ear and hearing care, specifying how prevention of hearing loss can be integrated into other health care programmes, raising awareness, screening for hearing loss and ear diseases, and organizing training in and provision of assistive technologies;
- (3) to intensify collaboration with all stakeholders with the aim of reducing hearing loss due to recreational exposure to noise through the development and promotion of safe-listening standards, screening protocols, software applications to promote safe-listening and information products;
- (4) to undertake advocacy through World Hearing Day on 3 March each year, with a different theme every year;
- (5) to report on progress in the implementation of the present resolution to the World Health Assembly.

Tenth plenary meeting, 31 May 2017  
A70/VR/10



Known as "whispering bats," brown long-eared bats (found mostly in Europe) make quiet calls, then listen for their echoes. This helps the nocturnal creatures detect obstacles and locate insects to eat.

PHOTOGRAPH BY FLIP DE NOOYER, MINDEN PICTURES

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