

16 February 2022



Currently **one in six** Australians suffer from some form of hearing loss. This may increase to one in four by 2050. Access Economics 2006

## I'd like to hear true silence again

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. The embarrassment needs to end.

## Everyone should learn some sign language

Sign languages are thriving. Several studies have found that hearing people who learn sign languages perform better in tasks requiring spatial transformation abilities – which you might use when taking down directions.

## The future of special schools in Australia

Do government education strategies align with Australia's international obligations to move away from segregated schooling for students with disability? What will this mean for Australia's special schools? And what does it mean for the future of schools for Deaf children?

## Being hard of hearing does not affect my racing at all

Taine is a two-time Victorian State title-holder in go-karting. "Racing is such a visual sport, where you need to be watching flags, lights and body language all the time. I don't feel like I am hard of hearing when I am racing."

## World Hearing Day, 3 March

Deafness Forum joins the World Health Organization in its calls on government, industry partners and civil society to raise awareness for and implement evidence-based standards that promote safe listening.

Deafness Forum Australia is a Voice for All. It is the peak body representing the views and interests of the 4 million Australians who live with hearing loss, have ear or balance disorders, people who also communicate using Australian Sign Language, and their families and supporters. Our mission is to make hearing health & wellbeing a national priority in Australia.

# World Hearing Day

3 March 2022

**To hear for life,  
listen with care!**



World Hearing Day will be observed on 3 March 2022 with the theme,

**“To hear for life, listen with care”**

Through this theme, we can focus on the importance of safe listening as a means of maintaining good hearing throughout our lives.

The key messages will be:

- It is possible to have good hearing throughout your life through ear and hearing care
- Many common causes of hearing loss can be prevented, including hearing loss caused by exposure to loud sounds
- Safe listening can mitigate the risk of hearing loss associated with recreational sound exposure

Deafness Forum joins the World Health Organization in its calls on government, industry partners and civil society to raise awareness for and implement evidence-based standards that promote safe listening.

The World Hearing Day 2022 will mark the launch of:

- The 'Global standard for safe listening entertainment venues and events'
- A Safe Listening handbook
- A media toolkit for journalists

Visit [our website](#)

# Why everyone should learn some sign language

By [Bencie Woll](#) for [New Scientist](#)



Not so long ago, deaf children were punished in the UK for using sign language in the classroom.

Recounting his experience in the 1960s, one deaf person told one of my colleagues many years later: "I had a lot of punishments for signing in classrooms... One morning at assembly, I was caught again, then ordered to stand at the front of the class. The headmistress announced that I looked like a monkey [and that she would] put me in the zoo so the people will laugh at a stupid boy."

Thankfully, experiences like this are no longer as common. Sign languages have not only survived, but are now flourishing – so much so that many more people are getting the chance to learn them, which should be celebrated.

British Sign Language (BSL) is used by tens of thousands of people in the UK, including around 90,000 deaf signers. For some of them, such as children with deaf parents, it is the first language they acquire. In the US, more undergraduate and graduate students have enrolled on courses in American Sign Language (ASL) than German each year since 2013.

That sign languages are thriving should be welcomed for many reasons, including the cognitive benefits that learning them brings. Several studies have found that hearing people who learn sign languages perform better in tasks requiring spatial transformation abilities – which you might use when taking down directions. Space is an integral part of the grammar of a sign language, with verbs, nouns and pronouns using the space in which they are located as part of their meaning. Adult ASL students have enhanced face-processing skills, which are essential to reading emotions.

Learning a sign language can be enlightening, too. In a year-long study of preschool children by Amy Brereton at Trinity Washington University, hearing children who were learning ASL attained a greater appreciation of cultural diversity, as determined via classroom observations and interviews.

But according to Monique's comment on Deafness Forum's [Facebook page](#), "Unfortunately it (Auslan tuition) isn't freely available. I'm losing my hearing distressingly young, and my daughter, parents and friends would love to learn sign with me, but even I can't afford the courses so how can they possibly expect to? CIT/TAFE used to run courses, at a cost of course, but better than what's available now. They seem to have disappeared. You have to already be deaf enough for NDIS to make learning Auslan affordable. 😞 "

## Taine competed in the Australian Karting Championships



FOCUSED: Taine Venables is a championship winning hard of hearing racing driver that has some big dreams within the sport. Photo: Supplied.

He's a hard of hearing racing driver and was recently flying around at high speeds in Murray Bridge for the Australian Karting Championships.

Beginning at the age of eight, Taine Venables is a Go-Kart Driver, two-time Victorian State titleholder in Karting, winning the 2020 and 2021 state titles back-to-back.

Taine is also completely deaf in his right ear and has lost 25% of the hearing in his left ear.

"I did not know I was hard of hearing, completely deaf in my right ear, until I was four years of age," Taine said.

"My parents and kindy teachers suspected something was wrong with my hearing as I did not respond to them if I was a long way away from them.

"I had multiple operations for grommets since I was 15 months old, so my parents thought that my ears were blocked. I think everyone was quite shocked when we found out that I was completely deaf in my right ear and 25% in my left ear.

"Racing is such a visual sport, where you need to be watching flags, lights and body language all the time. I don't feel like I am hard of hearing when I am racing.

It wasn't an easy beginning to his racing career, but his passion for the sport shone through.

"I attended an all boys school and unfortunately I was bullied at school for wearing my hearing aids," Taine said.

"My parents were both extremely sporty and I loved playing all sports, but I found it difficult to hear on the footy field. We had a beach house in country Adelaide and every January there was a big Dirt Go Kart Meeting that we would go and watch.

"My parents suggested for me to maybe try go karting as it is a visual sport and I would not need to hear the coach.

As he fell in love with the sport his confidence grew, but an accident derailed his progress.

"Unfortunately, at the age of nine in May 2010, I had a big accident at my first state meeting I attended," Taine said.

"I flipped my go kart, resulting in a broken and smashed left femur. I was in a wheelchair for a while and had an operation to put a full plate and eight screws in my leg.

"I was able to race again in September of that same year. Nothing was going to stop me as I loved it so much. My parents wanted me to stop, but I knew then it was my passion."



PEDAL TO THE METAL: Taine flying around the Murray Bridge track.

Taine has some big dreams he'd like to fulfill in his motorsport career and it all begins in 2022.

"I am looking at racing the Australian Go Kart Championships to hopefully win the Championship.

"It is a five round championship in various tracks in Victoria, NSW, QLD and SA.

"If I win, I will then race at the world Championships in Europe. I also want to race Go Karts in Las Vegas in November 2022 at the Las Vegas Supernationals, where over 500 drivers from all over the world compete on the strip.

Even with all the goals he's aiming to accomplish in the future, Taine is happy with the example he is setting for others who are hard of hearing and thinking about a future within the sport.

"I really think motorsport is a great sport for people that are hard of hearing," he said.

"It is also a great family sport, where you get to spend most weekends together at a go kart track.

"I have great memories travelling all over Australia with my family to be able to race. Any hard of hearing person can race and I hope my achievements will inspire others.

"Racing feels amazing, especially as the go kart is so low to the ground. It feels faster than what it actually is."

"Being hard of hearing does not affect my racing at all. Racing is so loud and you have a helmet on, so even full hearing people can't hear much!"

From [The Murray Valley Standard](#)

## Scientists explore regenerative potential of the inner ear

Scientists from the Keck School of Medicine Stem Cell laboratory in the U.S. have identified a natural barrier to the regeneration of the inner ear's sensory cells, which are lost in hearing and balance disorders.

Overcoming this barrier may be a first step in returning inner ear cells to a newborn-like state that's primed for regeneration.

In the inner ear, the hearing organ, which is the cochlea, contains two major types of sensory cells: 'hair cells' that have hair-like cellular projections that receive sound vibrations; and so-called 'supporting cells' that play important structural and functional roles.

When the delicate hair cells incur damage from loud noises, certain prescription drugs, or other harmful agents, the resulting hearing loss is permanent in older mammals. However, for the first few days of life, lab mice retain an ability for supporting cells to transform into hair cells through a process known as "transdifferentiation," allowing recovery from hearing loss. By one week of age, mice lose this regenerative capacity -- also lost in humans, probably before birth.

Based on these observations, researchers took a closer look at neonatal changes that cause supporting cells to lose their potential for transdifferentiation.

In supporting cells, the hundreds of genes that instruct transdifferentiation into hair cells are normally turned off. To turn genes on and off, the body relies on activating and repressive molecules that decorate the proteins known as histones. In response to these decorations known as "epigenetic modifications," the histone proteins wrap the DNA into each cell nucleus, controlling which genes are turned "on" by being loosely wrapped and accessible, and which are turned "off" by being tightly wrapped and inaccessible. In this way, epigenetic modifications regulate gene activity and control the emergent properties of the genome.

In the supporting cells, the scientists found that hair cell genes were suppressed by both the lack of an activating molecule, and the presence of a repressive molecule. However, at the same time, the hair cell genes were kept 'primed' to activate by the presence of yet a different histone decoration, H3K4me1. During transdifferentiation of a supporting cell to a hair cell, the presence of H3K4me1 is crucial to activate the correct genes for hair cell development.

Unfortunately with age, the supporting cells of the cochlea gradually lost H3K4me1, causing them to exit the primed state. However, if the scientists added a drug to prevent the loss of H3K4me1, the supporting cells remained temporarily primed for transdifferentiation. Likewise, supporting cells from the vestibular system, which naturally maintained H3K4me1, were still primed for transdifferentiation into adulthood.

The study raises the possibility of using therapeutic drugs, gene editing, or other strategies to make epigenetic modifications that tap into the latent regenerative capacity of inner ear cells as a way to restore hearing.

Source: [Materials](#) provided by [Keck School of Medicine of USC](#). Original article by Cristy Lytal.

## Masking and the hard of hearing

The Covid pandemic has created communication barriers for people. Governments, support agencies and businesses need to address the needs of those that are most affected.

People who are hard of hearing are particularly disadvantaged by masks and barrier screens that muffle voices and obscure faces.

Older Australians are more likely to have hearing loss. Online banking is also often harder for them. So, many have continued to use face to face banking at branches. But now it is often 'masked banking'. Masks, barrier screens and social distancing muffle what is said. Wearing masks also obstructs being able to lip read or watch faces.



One strategy to help communication is to add text to speech technology to 'masked communication'. Here is an illustration of it being used in a trial at Bendigo Bank in Nightcliff, Darwin.

People can also initiate using speech to text technology themselves. See the illustration below.



### Create you your own speech to text in 'hard to hear' situations

- Download NALscribe on your smart phone
  - In app settings set text to the ideal size for you
  - Select dark theme (otherwise glare will be a problem)
- Get a light plastic phone holder from a phone shop.
- When you need to listen to a mask wearing, screen protected speaker who is hard to understand;
- Put phone on stand and push close to speaker so their speech is converted to text.
- Use it also with family – grand children will love to talk to you through it !

From communications training in the age of masking  
Contact [Damien@phoenixconsulting.com.au](mailto:Damien@phoenixconsulting.com.au)

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# 66%

At least two-thirds of Australians have reported suffering from noticeable tinnitus.

# 45%

45% of tinnitus sufferers experience anxiety and 33% report major depression.

# 37%

Only 37% of people experiencing tinnitus have sought professional help.

#BetterHearingBetterLiving  
Advocacy, advice, and support  
for all affected by hearing loss



What is Tinnitus? Read about [Causes and Treatment](#) from Better Hearing Australia.

## I'd like to hear true silence again

By Judith Vonberg

Tinnitus far more prevalent than many other chronic conditions such as asthma or diabetes – yet far less is known about it.

For the recent Tinnitus Week 2022, the Ida Institute (based in Denmark) spoke to two of the more than one billion people who live with the condition, to find out what it's like for them, how they manage it, and what they wish others understood.

Nick's tinnitus started 15 years ago when he suffered sudden sensorineural hearing loss. His hearing on one side disappeared entirely, replaced with tinnitus, and his "scrambled brain" struggled for months to make sense of the sounds entering through his good ear.

In contrast, Shari's tinnitus arrived five to ten years after she first noticed her hearing loss. For her, it's similar to the sound of a fluorescent light – a faint whine – with certain seasons triggering a more disruptive, lower pitched sound. And the differences don't end there. Like all tinnitus sufferers, Nick and Shari experience the condition and its impact on their lives in unique and uniquely challenging ways.

### What was it like at the start?

Nick: "After completely losing hearing on my right side, I developed whistling tinnitus, which later settled down to a roaring, white noise. I also experienced auditory hallucinations – extraordinary things that simply weren't there – for about the first six months."

Shari: "It started off very mild, like the sound of a fluorescent light when you turn it on, with the sound growing and growing. At the start, I thought it was an actual noise. I was looking around and I'd ask my husband if he was hearing it – we'd be looking for it. Then eventually I figured out that this was noise in my head and I needed to learn what tinnitus was."

## **What are the worst triggers?**

Nick: "I can't go into bars; restaurants are uncomfy to say the least; and pubs are impossible. I can go to a football match though, as long as I have heavy duty earplugs in. That's because everyone in that environment is responding to the same phenomena and my nervous system is tuned in with everyone else's – so when the crowd goes 'ooh' and 'aah', you follow them. That is much less painful than the random, arbitrary, chaotic, low volume hubbub in an art gallery, for example. Also, every time I feel unwell, the tinnitus worsens. So it didn't surprise me that when I was struck down with Covid in October 2020 – and I got it quite badly – the tinnitus went through the roof."

Shari: "It really flares up for me in the cold weather, around when the season changes. I still get the fluorescent sound, but there's a different sound, lower pitched sound then as well, right in the middle of speech, so it's hard to block out. It often comes with a headache or dizziness and sometimes I feel like I'm not hearing so well, so it comes with a whole host of symptoms. It really wears on me and it's just very unpleasant. I experience that off and on over a span of about two or three months every year.

"Something else that brings it on for me is very repetitive, rhythmic sounds, so when I'm on an airplane, or a train or a bus, sometimes even in the car. Then if I'm watching a TV show and there's an explosion and they play a high-pitched sound to mimic the real experience."

## **Imagine a situation where you don't notice your tinnitus at all. Where are you?**

Nick: "I'm on a windless open plain with not a lot of ambient noise – maybe just the odd cow lowing in the distance. Because my brain has got good at tuning out the tinnitus, being in a quiet or a silent environment that presents no threat, no possibility of raising the level of my tinnitus, that's the best for me. Or an environment where there is just one thing to concentrate on – either music or a film."

Shari: "A little bit of background noise is good, like light music playing or if you're outside and you can hear birds and the wind in the trees –where there's a light sprinkling of noise that's not drawing your attention, but just ambient noise that blocks out whatever you don't want to be hearing."

## **What helps you manage your condition, and how did you find out?**

Nick: "My tinnitus is fundamentally the same as it was at the start. But my brain has learned how to tune it out to a huge degree. So I'm much less aware of it. I can't listen to music at any great volume, which is very sad – music is my greatest passion in life – but I can listen to music and it makes sense. It took about three years to get to that point – an agonising three years – and another one or two to get to the level of tuning out that I've got now.

"I was aware almost immediately after the calamity that my brain was changing. I was also fortunate to be able to speak to an eminent neuroscientist who suggested I reconstruct music in my head repetitively, as this would help to retrain my ever-plastic brain to open new pathways to hearing. So I listened, just in my head, to a particular piece of music over and over and over again – and I could feel it getting better, very slowly. Now I can listen to that piece of music and I hear it with absolute clarity, in reality and not just in my brain."

Shari: "I'm lucky to have found good ways to manage my tinnitus. My noise-cancelling headphones are literally my favourite thing I ever purchased – I always wear these on flights and so on. Also, around eight years ago I was at a yoga retreat where they were teaching meditation, so I thought

I'd try it, not even thinking that it could help the tinnitus. I went into the meditation building and sat down and closed my eyes and tried to relax, and all of a sudden the sound started going away. The next day I came back and the same thing happened. It was like a miraculous thing I'd discovered! I still try and meditate regularly, and it has a big impact on lessening the noise."

### **What advice do you have for other sufferers?**

Nick: "Acceptance is a huge part of this battle. It's very difficult when something is as ugly and invasive and destructive as tinnitus – it seems almost insulting to want to accept it. But I think it's your best tool. I started accepting mine and it started to improve. It's now bearable - no longer ugly, no longer intrusive, no longer the worst thing in my life."

Shari: "Yes, it sucks and people are going to tell you, 'sorry, there's nothing you can do about it' – but that's not true. You can't make it go away, but there are things that can help you cope with it and live with it successfully. You can mask it by playing music, you can do meditation and exercise, you can train yourself to think differently about it through Cognitive Behavioral Therapy. Something that can really help is to talk to other people who experience tinnitus – trading stories, trading tips can be such a relief and so supportive."

This article was published by the [Ida Institute](#). Check out the Ida Institute's free tinnitus resources [for clinicians](#) and [for people with the condition](#).



## **Consumer information about teleaudiology**

What would you want to know if your hearing health professional suggested a teleaudiology appointment? As part of the teleaudiology guidelines project, Audiology Australia is putting together information to help consumers decide if teleaudiology is right for them. Consumer feedback is an important part of the process.

If you'd like to join a focus group in the second half of March to discuss a draft consumer resource, please contact Karen at [teleguidelines@audiology.asn.au](mailto:teleguidelines@audiology.asn.au) by 4 March 2022.

You can read more about the project at [www.teleaudiologyguidelines.org.au](http://www.teleaudiologyguidelines.org.au)



## The future of special schools in Australia

The United Nations has called on Governments that are signatory to the *Convention on the Rights of Persons with Disabilities* (CRPD) to adopt practical but progressive systems to transfer resources from segregated settings/special schools into mainstream schools.

In a newly published [research paper](#), the authors examine recent Government reviews and inquiries into the education of Australian students with disability to determine whether future planned actions align with Australia's international obligations to move away from segregated schooling.

What will this mean for Australia's special schools, particularly given their significant rise in enrolments over the past decade? What will it mean for the education of Australian students with disability?

And what does it mean for the future of schools for Deaf children?

## Employer Confidence: grant opportunity

The Australian Government is inviting organisations to apply for a Building Employer Confidence and Inclusion in Disability grant.

The aim of this grant opportunity is to build the confidence and ability of employers to hire, support and retain employees with disability create inclusive workplaces by breaking down attitudinal barriers about people with disability.

Information about applying can be found on the [Community Grants Hub website](#) and [GrantConnect](#)

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

Drop us a line to [hello@deafnessforum.org.au](mailto:hello@deafnessforum.org.au)

Contact us to receive this publication in an alternative file type.

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