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<u>deafness forum o</u>f australia

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COVID-19 does not damage auditory system

The social media has attributed numerous illnesses and symptoms to the coronavirus, but often the information is unfounded and leads to unwarranted stress, as well as needless pressure on the health system. There are so many speculations about this virus and the damage inflicted by it, and we have shown that at least in the auditory system no damage was detected.

Deafness doesn't have to hold you back

Zia was three weeks old when she was diagnosed with severe hearing loss, a shock that sent her parents into a tailspin of worry and concern. Zia's hearing loss was identified in the Healthy Hearing screening for all newborn babies in Queensland.

Tackling the Silent Epidemic

In Perth, and broadcast internationally, Prof Harvey Coates gave the Libby Harricks Memorial Oration, presented in 2021 by the Deafness Forum of Australia, Deafness Council of Western Australia, and Audiology Australia.

Hearing again is music to his ears

I would say anybody, particularly with the current generation of headphone lovers, by the time they are 30 they should visit an audiologist. It is no big deal, it's actually really interesting. The old, embarrassed guy wearing a hearing aid: those days are over.

Deaf community and Royal Commission

The Disability Royal Commission wants to hear about challenges, barriers and ways to better prevent and reduce violence against, and abuse, neglect and exploitation of, culturally and linguistically diverse people with disability.

COVID-19 does not damage auditory system, study finds



Since the beginning of the COVID-19 pandemic, there have been reports in the professional literature on possible hearing loss caused by the disease.

A new study from Tel Aviv University (TAU), in collaboration with the Galilee Medical Center, finds no evidence of damage to the auditory system as a result of COVID-19 infection.

The study was led by Professor Karen Avraham: "Since the beginning of the pandemic, it has been clear that COVID-19 has some long-term effects, such as the loss of the sense of smell and taste.

"The possibility of hearing loss, however, has been debated among medical practitioners, with some reporting this symptom in recovered patients.

"The question is whether such hearing loss is caused by damage to the auditory system, or whether it is a temporary symptom caused by fluids clogging the middle ear, as often happens with a common cold."

The researchers began to investigate this question during the first wave of the pandemic, when the numbers of patients in Israel were still relatively small. The study provided for the first time quantitative measures for hearing quality following exposure to the virus.

Study co-author Dr. Amiel Dror said, "We measured electrical data from the brainstem to test the entire route of soundwaves through the ear until electric waves are ultimately received in the brain. We also examined the activity of the inner ear hair cells that intensify and tune the sound. We found no difference between the COVID-19-positive subjects and the control group."

"There are so many speculations about this virus and the damage inflicted by it, and we have shown that at least in the auditory system no damage was detected.

"It's very important to base our knowledge of the virus upon objective studies and refrain from hasty conclusions.

"The social media has attributed numerous illnesses and symptoms to the coronavirus, but often the information is unfounded and leads to unwarranted stress, as well as needless pressure on the health system."

The researchers are currently conducting a much more comprehensive study with hundreds of patients, including people who had been severely ill and even ventilated.

From Science Daily

Zia Dredge, 9: deafness doesn't have to hold you back



Zia Dredge was three weeks old when she was diagnosed with severe hearing loss, a shock that sent her parents into a tailspin of worry and concern about their child's future.

The bubbly Brisbane girl's mother, Heidi Dredge, wants families to know they need not despair if a child has hearing loss, that technology and support have outpaced perceptions of hearing loss.

It comes as new data from First Voice reveals 94 per cent of Australians are unaware it is possible for children born deaf to learn to listen and speak as well as children with typical hearing.

Not-for-profit Hear and Say chief executive Chris McCarthy said it was sobering that most Australians did not realise potential outcomes if their children got the right diagnosis, technology and specialised speech therapy.

"Children that are going through our program have got clear, natural spoken language and I would challenge people that didn't know they have a hearing loss to pick it up."

Ms Dredge said there were no signs in her pregnancy and no family history of hearing loss, but Zia's hearing loss was identified in the Healthy Hearing screening for all newborn babies in Queensland.

"We basically went home from hospital distraught," she said.

But within a week, the families of Ms Dredge and husband Steve had "rallied" around them, with her sister, through research online, connecting them with not-for-profit Hear and Say.

The parents started speech and language therapy for Zia when she was 10 weeks old, which they would continue with weekly sessions.

Zia received hearing aids at 10 weeks and at eight months she underwent surgery for a cochlear implant and was "switched on".

"It was one of the best days of our lives," Ms Dredge said.

With weekly speech therapy Zia quickly caught up to her peers and by the time she was 18 months old her listening and speech skills were on par, overtaking them when she was two-and-a-half.

"Zia loves school, she does very well at it, she's got lovely friends, she loves swimming, she loves computer games, she loves singing and dancing and her biggest passion in life is books," she said.

From ABC News Brisbane

Scientists discover a simple method of reformulating gentamicin, a commonly used and highly effective antibiotic, that could prevent its toxic side effect of hearing loss.

Gentamicin is used in hospitals to treat a variety of bacterial infections, including infections in newborns and in other susceptible patients, such as those with cystic fibrosis.

It is a popular drug in developing countries because it is highly effective and inexpensive. Yet researchers estimate that up to 20% of patients who are treated with it experience some degree of irreversible hearing loss.

Now, researchers have found a relatively inexpensive way to reformulate the drug, which belongs to a class of antibiotics called aminoglycosides, to be safer.

"When a drug causes hearing loss, it is devastating, and it's especially disturbing when it happens to a young child, as they rely on hearing to acquire speech," said Alan Cheng, MD, a professor of otolaryngology at the Stanford School of Medicine.

A dangerous recipe

Aminoglycosides have been in use since the 1950s. The drugs don't need to be refrigerated, which keeps the costs of storing them low. Despite new antibiotics, their use remains commonplace as they are cheap and potent.

"These drugs are used because they save a lot of lives," Ricci said. "We've stopped paying attention to their toxic side effects because living with hearing loss is better than dying."

The gentamicin used in hospitals today is a mixture of five different subtypes of the antibiotic grown together in the same mixture. The mixture also includes as much as 10% impurities. Using methods such as high-performance liquid chromatography and nuclear magnetic resonance imaging, the researchers tried to figure out how to chemically separate each of the subtypes so they could be tested separately.

The researchers found that by removing impurities from the mixture, toxicity to the ear tissue was reduced.

"If we just use the subtype that's less toxic or change the formulation of this bottle, we can make the drug much less ototoxic," Ricci said, referring to harm to the ear.

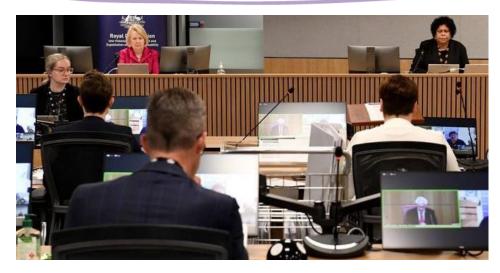
Given that the subtypes are all approved by the Food and Drug Administration, new formulations don't necessarily need to be retested in humans and could get to patients fast.

The researchers are also working on plans to create a new aminoglycoside that could further reduce the risk of hearing loss, Ricci said. They'discovered that the inner-ear toxicity of the various subtypes highly correlates with the way they bind to the ion channels that open to the inner ear.

"This discovery lays the groundwork for the discovery of safer antibiotic alternatives and future drug development," he said.

From Stanford Medicine, published in ScienceDaily





People in the Deaf community have an opportunity to share their experiences with the Disability Royal Commission

The Disability Royal Commission wants to hear about challenges, barriers and ways to better prevent and reduce violence against, and abuse, neglect and exploitation of, culturally and linguistically diverse people with disability.

In its <u>latest issues paper</u> released this week, the Royal Commission calls for information and feedback from members of the public, particularly people with disability from culturally and linguistically diverse backgrounds and their supporters.

The Royal Commission says it recognises that people who use Auslan or another sign language as their first language share a distinct, rich culture and language.

The Royal Commission is seeking feedback in the following areas:

- How culture and language may affect the life course of someone with a disability from a culturally and linguistically diverse background.
- How culturally and linguistically diverse people with a disability overcome language barriers when trying to access support, and the pathways they follow to ask for assistance.
- Cultural attitudes and the language of disability within culturally and linguistically diverse communities.
- How communities can have positive or protective attitudes towards disability, and reasons that people may not identify as having a disability even though they have an impairment.
- How the different ways disability is understood in culturally and linguistically diverse communities may support and include people with disability, or how they might exclude or disadvantage them.

The Royal Commission encourages responses by 11 June 2021. Responses will also be accepted after this date. This issues paper has been translated into nine languages.

You can read the full issues paper and how to respond on the Royal Commission website <u>here.</u>
Deafness Forum receives funding to promote the work of the Royal Commission.



Libby Harricks Memorial Oration

The legendary Professor Harvey Coates AO presented the 2021 Libby Harricks Memorial Oration in a webcast this month from Perth in Western Australia.

His topic: Indigenous Ear and Hearing Health — Tackling the Silent Epidemic.

Watch the video <u>here</u>. <u>This version</u> has an Auslan interpreter screen.

Harvey Coates has a lifelong interest in otitis media in Aboriginal children. This has included clinical outreach in remote parts of Australia and the South Pacific, as well as working with the WHO, and Committees nationally and internationally.



It was a great event in Perth hosted by the Deafness Council WA and Telethon Kids Institute.



Photo 1/. Senator Rachel Siewert, Harvey Coates, and Deafness Forum director Raelene Walker.

- 2/. Barry MacKinnon AO presents the prestigious Dr Harry Blackmore Award to Pia Leeming. Pia is an audiologist at Perth Children's Hospital. While she was employed at Telethon Speech and Hearing Centre her programs and vision were instrumental in TSH being considered one of the best Auditory Verbal practices in the world. With *Hear at Home* her impact was with families, where she supported them to understand what they need to do to help their child to, learn and listen and use spoken language.
- 3/. Deafness Forum member and advocate for communications accessibility Margaret Furphy with another of our members John Byrne, WA's Equal Opportunity Commissioner.
- 4/. Barry MacKinnon, President of Deafness Council WA, and Paul Higginbotham who runs the incredible Earbus Foundation.

Hearing well again is music to his ears



'There was definitely a social price to pay from hearing loss,' says part-time Sydney musician Chris Somerville. Picture: Adam Yip

One person in six — suffer from hearing loss but many wait as long as a decade to seek help, causing potentially worse problems, specialists say.

During that seven to 10-year period, many who need treatment become more isolated, more anxious and are at increased risk of a number of diseases, including dementia and cardiovascular disease, says Audiology Australia president Barbra Timmer.

"That means that during this time, their hearing is getting worse, they are probably getting more socially isolated, may be less engaged with their family and friends and may have increased problems with other issues such as balance, cognition etc," she said.

The World Health Organization estimates that 40 per cent of people who frequent entertainment venues are at risk of hearing loss. Sydney musician Chris Sommerville, 61, is one of those.

"Every musician I know has got hearing loss," he said.

"When I was in my late 40s, I started to get ringing in the ears as a result of years and years of going to see bands and being a part-time musician.

"What hearing loss does, particularly in a group situation, you tend to say no to a lot of social things because it's really hard work — you miss stuff. In the end, it was like I couldn't be bothered."

"I would say anybody, particularly with the current generation of headphone lovers, by the time they are 30 they should visit an audiologist. It's no big deal, it's actually really interesting," he said.

"The old embarrassed guy wearing a hearing aid - those days are over."

Review of the Disability Standards for Education: report available



Warm thanks to all our members & friends who were interested in contributing their views last year to the Government's Review of the Disability Standards for Education.

The Review's final report is now available on the Department of Education, Skills and Employment website. It is accompanied by a short summary document that outlines how the Review was undertaken, what the Review found and what it recommends. This summary document is available in Auslan, Easy Read, and 11 community languages.

The Australian Government will work closely with state and territory governments and education authorities to implement recommendations. Changes will be made with help and advice from people with disability and educators, including Aboriginal and Torres Strait Islander people with disability.

The Government has committed to publicly reporting each year on progress against implementing the Review's recommendations. This will make it clear to the community what actions have been taken and where further work is required.

Read the Report at https://www.dese.gov.au/disability-standards-education-2005/2020-review-disability-standards-education-2005





Did you know that First Nations people make up 2.5 per cent of the Australian adult population, yet they represent 29 per cent of all adult prisoners in Australia? These appallingly high levels of incarceration and what contributes to it was one of several issues raised in a recent <u>Disability Royal Commission</u> public hearing on the criminal justice system.

Quality and safeguards

People with disability are entitled to live their lives exercising choice and control in how they do so. At the same time, safety considerations are essential to avoid violence, abuse and neglect and exploitation. Getting this balance right is challenging.

The Disability Royal Commission has prepared the <u>Safeguards and Quality Issues Paper</u> which seeks public responses.

Advertisement

WELCOME TO HEARPEERS

- Is hearing loss making life difficult?
- Are hearing aids no longer as effective?
- Do you have a child who was born deaf?
- Have you suffered from sudden hearing loss?
- Are you considering a hearing implant?

If you answered 'yes' to any of the above and are looking for somebody to talk to who understands what you're going through, then you've come to the right place

HearPeers is an online community of **volunteer mentors** who all live with a hearing loss.

HearPeers Mentors are happy to share their experiences of life with a hearing implant and answer any of your questions.



https://au.hearpeers.com/

Advertisement

Gateway connecting people with disability to the services they need

The Disability Gateway connects people with disability, their family, friends and carers, to information about supports and services they can find in Australia. This includes information about coronavirus (COVID-19). Much of this information is also available in Easy Read on the website. You can use the toggle button under the main photo on the Home page to access the Easy Read information.

You can also call Gateway staff on **1800 643 787**, Monday to Friday 8am to 8pm (AEST). The Disability Gateway phone line is not available on national public holidays.

https://www.disabilitygateway.gov.au/



Blind Sports Australia, Deaf Sports Australia and Sport Inclusion have been working on a collaboration partnership over the last 12 months that now sees the collaboration working under the Inclusion Alliance banner.

Their aim is to promote best inclusion practices at all levels in the sport, recreation and fitness industries based on a key principle of person first in all plans and discussions.

Their vision is to effectively build the capacity of the sectors to be inclusive of all people who have a disability.

Learn more here.



Announcement



A Letter to our Hear For You Participants, Parents & Supporters

In 2007, Olivia Andersen founded Hear For You as a charity aimed at bridging the significant gap for young deaf people across Australia.

Hear For You has grown from small beginnings to a respected Australia and New Zealand wide charity and an accredited NDIS provider.

This year, the Board reviewed its strategy with an eye to making sure Olivia's vision remain for the long term. To truly realise this vision, Hear For You must be able to extend and expand. When the Board considered the strengths of Hear For You, it found there is a natural affiliation with The Shepherd Centre. Olivia, our Founder, is a graduate of The Shepherd Centre. A number of staff and mentors and many past program participants are also graduates.

The Shepherd Centre identified their own gap in being able to meet the needs of supporting graduates who are of high school age. Rather than creating another service for teenagers and young adults, the proposal to integrate Hear For You into The Shepherd Centre was born.

The date of completion for this integration is 1st of July 2021.

Who benefits from this integration?

This integration will bring great benefits for both organisations.

It allows us the opportunity to further develop Hear For You services and resources with the financial backing of TSC.

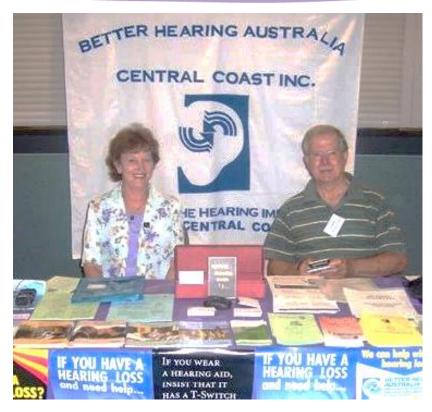
In turn, TSC gains the ability to provide services for a deaf/hard of hearing child at all stages of their development right from diagnosis all the way through to their young adult years.

What will change?

All of the programs and mentoring services are going to continue as they currently are, with no operational change, but there will be governance changes.

All Hear For You staff, including our founder Olivia, and mentors will integrate into The Shepherd Centre operations structure. The Hear For You logos, designs, websites, and most importantly, the Mentor programs will remain the same.





Better Hearing Australia Central Coast (NSW) hosted a stall at a recent International Women's Day Expo to highlight how timely and effective interventions can help people with hearing loss reach their full potential.

President of Better Hearing Australia Central Coast, Jeannine Asciak said ageing and excessive longterm exposure to loud noise, often in the workplace, are the most common causes of hearing loss in Australia.

"Of especially great concern is hearing loss due to loud noise as it is preventable," Ms Asciak said.

"As technology has advanced, many people with hearing loss have benefited from hearing aids and cochlear implants, but, even with these innovations, communication can still be challenging.

"The ability of people with hearing loss to hear clearly at noisy public events may be greatly improved by the installation of hearing loops and other systems."

"Hearing Awareness Week and World Hearing Day, on March 3, provided opportunities to focus on the needs of Australians who are hearing impaired, and to explain to the community about the need for screening and the risks associated with long-term exposure to loud noise," Ms Asciak said.

Almost four million Australians (one in six) are affected by some level of hearing impairment. By 2050 it is expected one in four Australians will be affected by hearing loss.

The condition affects one per cent of people aged younger than 15 and 75 per cent of people aged over 70.

From Central Coast Community News

Better Hearing Australia is a consumer led not-for-profit organisation promoting best practice in hearing loss management through advocacy, support and education.



Genetic patch to prevent hereditary deafness

Hereditary deafness can manifest itself in different ways. Often the hereditary defect (mutation) immediately causes deafness from birth. Sometimes, as with DFNA9, you experience the initial problems in hearing later in life. This has everything to do with the way DFNA9 mechanistically works. Every person gets half of his genes from his father and the other half from his mother. If you have two healthy copies of the DFNA9 gene, your inner ear works normal. If you receive a mutated copy of the gene from either your father or mother, deafness will develop later in life.

Protein spaghetti

Erik de Vrieze and Erwin van Wijk, both researchers at Hearing & Genes of the department of Ear, Nose and Throat, have conducted extensive research into the condition. De Vrieze: "We now know that you actually produce enough of the associated DFNA9 protein with just one healthy gene copy to be able to hear well for life. But there is a catch with this condition. The mutated protein is, in a way, disturbing the function of the healthy protein. It sticks to it, so that the healthy protein can also no longer do its job. This clumped protein spaghetti is constantly being removed by the cells of the inner ear, but after decades the clean-up service in these cells is reaching its limit and can no longer cope with these protein clumps. The waste accumulates, the hearing cells start to function poorly and even die over time. After years of normal hearing, DFNA9 patients suddenly notice that their hearing is deteriorating, until at some point they will become deaf."

Enough time for treatment

The specific DFNA9 mutation seems to originate from a common ancestor in the Southern Netherlands, somewhere at the end of the Middle Ages. Van Wijk: "This condition is a hereditary condition that only manifests itself after a few decades in life. If an effective treatment becomes available, a sufficiently large timeframe is available to apply it before the hearing loss really strikes."

Turning off mutant gene

Van Wijk: "The idea is that by specifically turning off the mutated gene copy you can prevent deafness. In addition, one healthy gene copy alone produces enough protein to maintain good hearing."

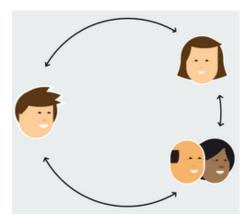
Genetic patch

De Vrieze and Van Wijk further developed this idea. Together with colleagues, they have now published the research results in the scientific journal Molecular Therapy -- Nucleic Acids. "Genes, that reside on our DNA, provide the genetic code for the translation process into proteins," says De Vrieze. "To get from a gene to a protein, you always need a translation process via so-called messenger RNA. And that is exactly the process we focused on. The unique DNA error in the DFNA9 gene is also reflected in the RNA. We developed a small piece of RNA that specifically binds to the messenger RNA derived from the mutated DFNA9 gene. As a result, the entire mutated messenger RNA is targeted for degradation. In this way, an essential link is lost and the mutant DFNA9 protein is no longer or hardly produced. The piece of RNA that we stick on the mutated DFNA9 messenger RNA is named an antisense oligonucleotide or "genetic patch."

From Science Daily



Involving communication partners in hearing care



Research suggests that there is significant value in including communication partners in routine hearing care - leading to increased hearing aid uptake, use, and satisfaction.

The Ida institute in Denmark created tools to help professionals involve communication partners in the rehabilitation process, allowing them to better address their clients' communication challenges in a holistic way.

These tools aim to:

- Help clients communicate with the people that matter the most
- Involve client's key communication partner in the rehabilitation process
- Structure the discussion and set attainable goals together
- Get better outcomes through family involvement

Visit the website



Deafness Forum is a member of Ida Institute and distributes its information and resources freely in Australasia to consumers and hearing care professionals.

Know someone who would like to get One in Six?

Drop us a line: hello@deafnessforum.org.au

We acknowledge the traditional owners of country throughout Australia, and their continuing connection to land, sea and community. We pay respect to them and their cultures, and to elders past, present and future. We acknowledge the challenge of overcoming high levels of ear health issues among First Nation people and its role in Closing the Gap. We acknowledge the risk to indigenous sign languages of disappearing and the importance of Auslan.

People with disability have and continue to be subjected to isolation, exploitation, violence, and abuse in institutions. We thank the Australian Parliament for its bipartisan support of a Royal Commission into the evil committed on people with disability.

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