



Autumn Edition 2020



## It's Hearing Awareness Week!

This week is Hearing Awareness week in Australia (1st-7th March) and World Hearing Day (3rd March). The World Health Organisation's theme this year is **Hearing for Life: Don't let hearing loss limit you.**

Key messages for 2020 are:

- At all life stages, communication and good hearing health connect us to each other, our communities, and the world.
- For those who have hearing loss, appropriate and timely interventions can facilitate access to education, employment and communication.
- Globally, there is lack of access to interventions to address hearing loss, such as hearing aids.
- Early intervention should be made available through the health systems.

In support of both of these key initiatives, for a limited time, Victorian Hearing are offering complimentary hearing screenings for the month of March. Offering this

opportunity to your patients in order to 'benchmark their hearing will ensure if there is a hearing loss, early prevention is key.



Victorian Hearing  
The Hearing Specialists

For a limited time, in support of Hearing Awareness Week:  
**FREE HEARING SCREENINGS!**  
*Offer ends 31st March 2020*

we support  
**HEARING  
awareness  
WEEK**

## Latest News

### **International Conference: Hearing well, being well - A strong scientific connection**

Victorian Hearing Clinical Audiologist Maryam Zargarbashi spent 3 days in Germany attending a global conference with more than 300+ delegates across 21 countries. The conference “hearing well and being well – a strong scientific connection” explored the importance of social connectedness, the importance of family support, the positive cognitive changes and neuroplasticity in our brain with improvements in hearing.

Maryam’s highlight was the presentation by Professor Barbara Weinstein from the graduate centre, University of New York.

Professor Barbara Weinstein, is a world-renowned expert in hearing health in geriatric populations with a keen interest in dementia populations.

She has authored over 150 research papers and designed outcome measure guidelines implemented across a number of medical practices worldwide.



Professor Weinstein's presentation in Frankfurt explored the importance audiologists play in our industry in delivering products, services, and business models that foster well-being and support healthy ageing.

Literature shows a strong social environment provides emotional and intellectual stimulation and this is critical to longevity. Social connectedness is the number one predictor of longevity and mortality and social connectedness is directly related to being able to hear and communicate. With this in mind, Professor Weinstein went on to discuss the importance of measuring pre and post amplification fitting benefit by assessing the changes in levels of both subjective and objective social isolation and loneliness as a function of improved hearing.

She explains that in addition to measuring amplification benefit through speech discrimination tasks, we should be addressing social and emotional isolation changes more directly given its significant relationship with well-being.

So how does the loss of hearing break down social connectedness?

Hearing loss affects our ability to follow, retain and interpret spoken messages. This will worsen with age and with the acoustic challenges of the real world, there is greater demand on the individual suffering with a hearing loss. This results in increased listening effort and cognitive effort. Should the listening effort become so great and reward so little, individuals lose motivation to participate. With poor motivation, the desire to remain connected diminishes and people then withdraw. This situation is intensified with increasing degrees of hearing loss with significantly higher rates of isolation and withdrawal.

Research by Professor Weinstein shows:

- Patients with poor social connectedness see their GPs more frequently.
- Patients who report higher levels of loneliness are admitted to residential care facilities at a younger age and are more likely to suffer from depression, poorer self-efficacy and increased cognitive decline.
- The degree of hearing loss is directly related to measured social isolation and emotional loneliness, the worse the hearing the lonelier they feel.
- Hearing loss is undertreated and under diagnosed.
- Hearing aid use in multiple studies have shown a significant reduction in self-reported and objective measures of loneliness.
- This measure was impacted more positively with worsening degrees of hearing loss.

Given the relationship between hearing status with isolation and loneliness, treating underlying hearing loss is a modifiable risk factor for healthy ageing.

### **Key Take Away Message:**

**Therefore, all patients who report feels of loneliness should be referred for audiology as part of a team care arrangement. The diagnosis and treatment of hearing loss has a profound positive upstream consequence of social connectedness, self-efficacy, motivation and overall wellbeing.**

## **Tele-Audiology**

Digital health has become the new norm for patients in the 21<sup>st</sup> century. It is clear a major health trend is present where our patients are displaying more “consumer like behaviours.” With the exponential increase in access to online search systems and social media, there is more health care choice than ever.

As the demographic of people walking through clinic doors are changing, we as health professionals need to keep up with their new digital needs. In Audiology, we are keeping up with this change with the introduction of Tele-Audiology.

### **What is Tele-Audiology?**

Tele-Audiology is another mode of service delivery/communication outside of the clinic. This includes:

- Emails
- Live chats
- Phone calls
- Video Calls

### **Remote Care**

Tele-Audiology does not replace the face to face appointment times we spend with our patients however are designed to complement our in-clinic services. Research shows by staying in touch with your audiologist, this instils confidence and better adherence to the recommended rehabilitation plan, such as the uptake and use of hearing devices. Resulting in overall better health outcomes and less devices in the draw!

To keep up with our changing populations, **Remote Care** is one of the Tele-Audiology services provided to our patients at Victorian Hearing. Remote Care is a feature available through most hearing aid manufacturers, allowing adjustments to hearing aids wirelessly through a smart phone and mobile application in the comfort of their home, or a listening environment they are hoping to optimise hearing in. Depending on the type of hearing aids fitted to the patient, these adjustments can be made in real time or through a secured cloud system where the patient request can download and save the adjusted sound quality send through by the Hearing Care Provider (HCP).

### **Who benefits from Tele-Audiology?**

Our low needs, high empowerment patients are ideal candidates for Tele-Audiology services but not restricted to this demographic. It is important to remember that hearing rehabilitation is a long journey, during which a patient's needs and lifestyle may change and it is important to always provide patients with choice and access. With the introduction of Bluetooth connectivity between smart phones and hearing aids now the new norm, the use of telecommunication technologies allows us to reach out to patients, reduce barriers to optimal care in underserved areas, improve user satisfaction and accessibility to specialists, decrease professional isolation in rural areas, help medical practitioners expand their practice reach and save patients from having to travel or be transported to receive high quality care. These are obvious

advantages of Tele-Audiology which may also facilitate overcome common barriers to getting hearing aids, such as cost and distance from hearing care providers.



## Dementia - Prevention, it is possible?

Dementia continues to affect millions of people worldwide and is one of the most significant health issues of the 21st century. The question on everyone's mind is...can we prevent dementia?

To better understand and manage dementia patient care, the audiologists at Victorian Hearing are currently completing the Massive Open Online Course (MOOC) "Understanding Dementia" offered by the University of Tasmania. The course provides university-quality education about the latest in dementia research and care.

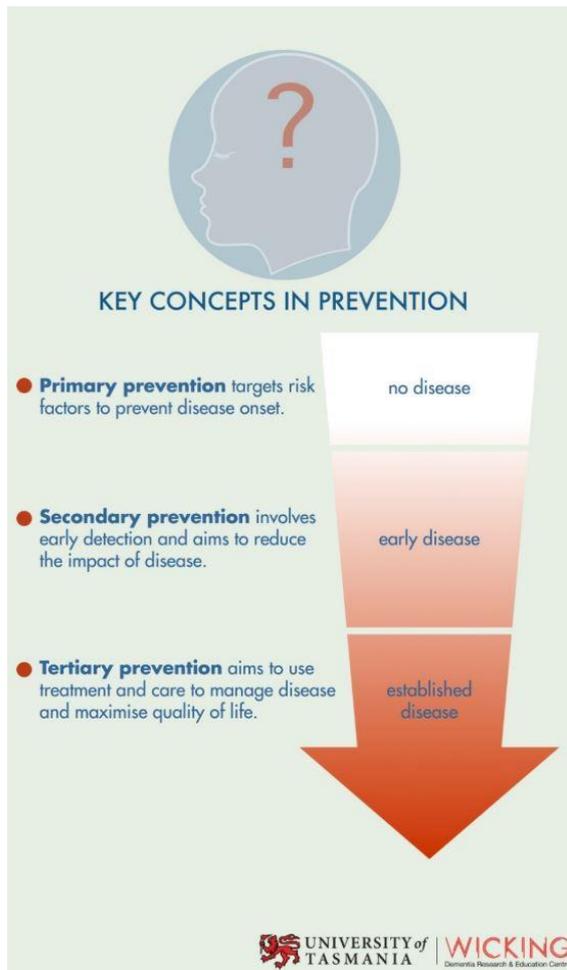
The 4 week course aims to provide knowledge designed to maximise quality of life across the trajectory of dementia for people with the condition, their families and carers.

Following successful completion of this course, a second 7-week course "Understanding Dementia" will be available to gain a deeper understanding the causes, symptoms and ways of responding to the needs of Dementia patients.

The research is quite clear in that we are an ageing world. We have more people living longer lives due to advancements medical knowledge and treatment, particularly in wealthy high-income nations.

Ageing however is a non-modifiable risk factors for dementia and we will therefore

continue to see an increase in the prevalence of dementia worldwide. It is estimated by 2050 there will be up to 135 million people living with dementia!



Whilst the increase in prevalence of dementia is inevitable, how can we slow its incidence and therefore further prevent dementia?

The key is to address known modifiable risk factors. These include:

- Obesity and diabetes
- Smoking
- Improve cardiovascular health
- Increase physical activity
- Education and training of the brain
- Hearing loss

### What is the relationship between hearing loss and dementia?

Research has identified a number of factors that may increase the risk of developing dementia. Presbycusis, is one such factor.

Research suggests that people with mild symptoms of hearing loss may be twice as likely to develop dementia as those with healthy hearing and person's with severe hearing loss may be five times more likely to develop dementia (Lin et al, 2019).

We know hearing loss places an additional load on the mental resources of a vulnerable brain as the person who has difficulty hearing works harder to decode and process sounds. Lin et al 2019, explain this additional load may mean that there are fewer resources and energy remaining for memory, understanding speech, and other cognitive functions, and this may lead to changes in the brain. They also suggest it is possible that the neurological process that leads to dementia is the same process that leads to age-related hearing loss.

Research has shown poor hearing brings with it a multitude of downstream consequences which in turn also increase the risk of developing dementia. The risks associated with untreated hearing loss and associated with an increase risk in dementia include:

- Social isolation
- Feelings of loneliness and depression
- Loss of independence
- Poor memory recall

We know that assistive listening devices and hearing aids reduce the additional load being placed on the brain to decode spoken messages. By reducing one's listening effort and improving hearing clarity, we are allowing for more our energy and resources to be devoted to other higher order skills like memory. This in turn also helps people feel more connected, more comfortable to be socially involved and improving this feeling of isolation and loss of independence.

*Frank R. Lin, MD PhD and Marilyn Albert, PhD, 2014, 'Hearing Loss and Dementia – Who's Listening?', Aging Ment Health. 2019 Aug; 18(6): 671–673*