

# Can You Hear?

## Services at Medical Audiology

- Adult and child hearing assessments
- Hearing aids
- Tinnitus assessment & management
- Assistive listening devices
- Noise and water protection
- Cochlear implants
- Bone conduction hearing implants
- Electro-acoustic hearing implants
- Balance assessments & rehabilitation
- Auditory brainstem response tests
- Pre- and post-employment assessments

## The ageing ear: Why is everyone mumbling?

Presbycusis or age-related hearing loss results from progressive, complex changes along the auditory pathway. Older adults with presbycusis often describe an inability to understand speech clearly rather than an inability to hear.

The effects of presbycusis are measurable from the age of 30, as illustrated in Figure 1 which shows average hearing levels across age groups. High frequency hearing is affected first and most severely, although lower frequencies become involved with increasing age. This pattern leads to a perception of speech that is loud enough but indistinct because of reduced hearing of high frequency consonants, primarily: /s/, /f/, /th/, /t/, /ch/ and /sh/.

A loss of sensory hair cells and supporting structures within the hearing nerve called the cochlea are changes which lead to presbycusis. Degenerative changes in the auditory brainstem and cortical areas of the brain, termed central presbycusis, exaggerate hearing difficulties in situations with competing speech and background noise. Reduced muscle elasticity and stiffening of the outer and middle ear structures with ageing are well documented, although they rarely cause significant reduction in hearing levels.

There is no clear-cut cause for age related hearing loss. Noise exposure, cardiovascular disease, inflammation, genetics, pollutants and medications have all been implicated as contributing causes of damage over a person's lifetime.

Presbycusis causes a permanent, progressive hearing loss which is best addressed with early intervention to prevent social isolation & improve quality of life. Further, there is growing research in reducing the risk of hearing loss related dementia with timely intervention.

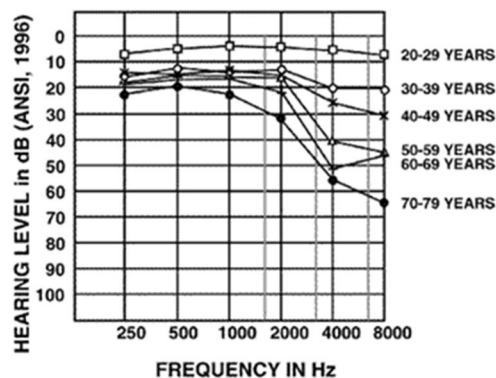


Figure 1. Average hearing levels as a function of age. From Wilson & Strouse (2002). Northwestern University Auditory Test No. 6 in multi-talker babble: A preliminary report.



**Merry Christmas from all of us at MAS**  
**Wishing you a safe & Merry Xmas**

Xmas Opening Hours

Closed from the 22nd of December—3rd of January

Please ensure you have enough batteries to get you through the festive season.

-Call our office early to place an order if needed

## The Ear and Cardio Vascular Function

The inner ear is particularly vascular and is therefore sensitive to poor cardiovascular function. Vascular changes of the inner ear can manifest as a hearing loss.

**Smoking** and its effect on the cardiovascular system represents a modifiable hearing loss risk factor. Smoking may impact the auditory system directly by its ototoxic or chemical effects on the inner ear, as well as indirectly by the vascular effects of smoking. Smokers are 15% more likely to have a hearing loss than non-smokers. The link between smoking and hearing loss risk has been shown to be dose dependant, so that the risk of hearing loss is increased in people who smoked more.

**Diabetes** is known to be associated with cardiovascular disease. Uncontrolled type 1 or 2 diabetes can impact the blood vessels of the ear as well as the auditory nerve. People with uncontrolled diabetes are twice as likely to have a hearing loss compared to those without diabetes. Hearing loss cannot be attributed to diabetes alone because of other compounding variables (presbycusis or noise exposure for example). High blood glucose levels associated with diabetes can cause damage to the small blood vessels of the inner ear, similar to the way diabetes can damage the eyes and kidneys.

## Insuring your hearing devices

Hearing help devices can usually be covered as part of your home and contents insurance. We recommend that you ask your insurance company about having your devices listed as specified items to avoid high replacement costs in case they are lost, broken, stolen, washed, crushed,



## What's New at MAS?

- Vesna is back — Vesna will return to MAS in January after having 2016 off on maternity leave
- Thank you to those who sponsored Anne who walked 50km for Oxfam in September. Anne raised

### Medicare Rebate

Do you have an up to date referral with your ENT? Specialist? Medical Audiology bills your ENT Specialist for any appointments needed for your **Cochlear** or **Bone anchored implant**, this allows you to get the maximum rebate from Medicare.

Before booking your appointment please make sure your referral is up to date - some GP's may even provide a long-standing referral.

## Donate your unused hearing aids

For several years, Medical Audiology Services has participated in charity projects led by Australian organisations across the Asia-Pacific. Many of us are fortunate to have access to digital hearing aid technology, unfortunately there are many countries where the hearing impaired cannot receive even basic hearing health care.

Currently, MAS donates used working hearing aids to the Nepal hearing program. If you have an old hearing aid that is no longer used we invite you to drop it off at our reception.

## Have we heard from you lately?

If you have not had a review in the last 18 months, it's time for a visit!

Regular hearing checks and device optimisation are needed to keep you hearing the best you can.

Office of Hearing Services voucher holders are eligible to receive services free of charge.

If you are unsure of your status, please contact us on 9321 7746.