

YOUR GUIDE TO  
**BETTER HEARING**



**bloom**<sup>™</sup>  
hearing specialists

the best way  
to better hearing



## YOUR GUIDE TO BETTER HEARING

Here at bloom™ we are committed to caring for your hearing. We know that a hearing loss can have a major impact on your life and can be challenging. The good news is that there is a wide range of help available.

This guide provides you with a brief overview of hearing, hearing loss and hearing aids.

At bloom™ we are always ready to help and if you require any more information then please don't hesitate to contact us on **1800 777 659**



# HOW DO WE HEAR?

**Our ears are a sophisticated hearing system, made up of three parts:**

THE OUTER EAR

THE MIDDLE EAR

THE INNER EAR

## **The outer ear**

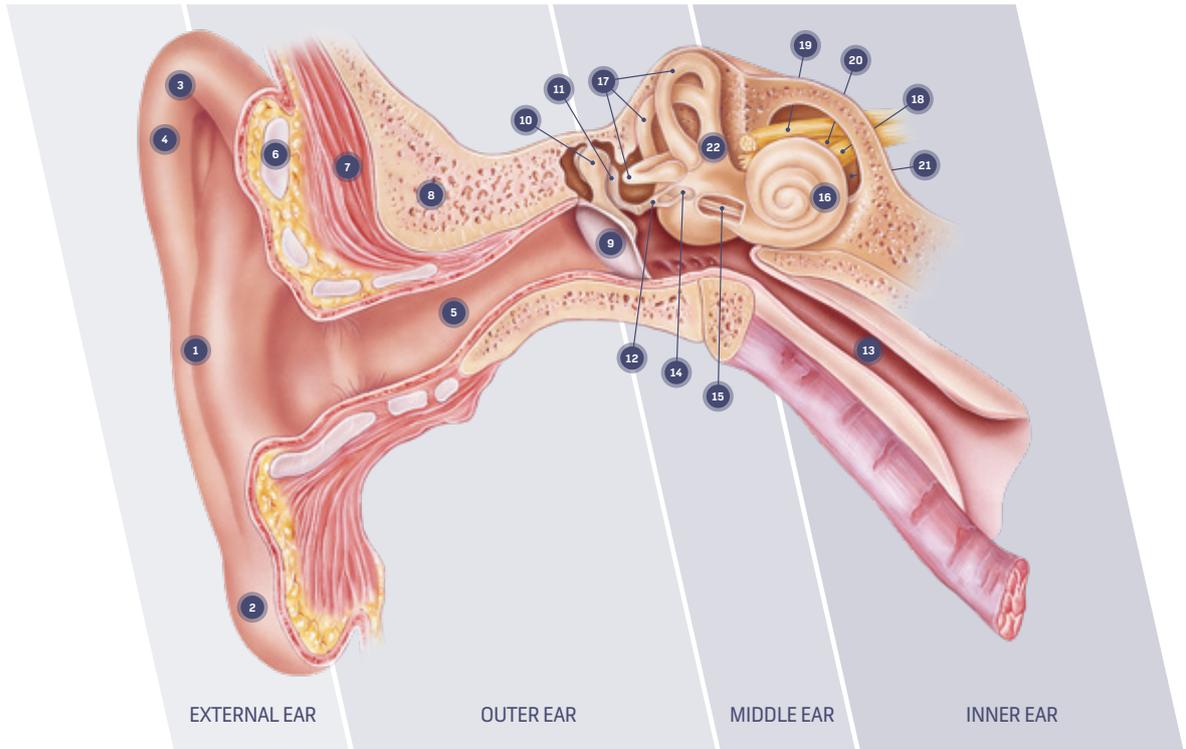
The outer ear includes the pinna (the visible part of the ear), the ear canal and the eardrum. The pinna collects and directs sound into the ear canal, which acts as tube to direct the sound into the eardrum. This causes the eardrum to vibrate and pass sound on to the middle ear.

## **The middle ear**

The middle ear is an air-filled chamber that contains three tiny bones (known as the ossicles) which connect the middle ear to the inner ear. The vibrating eardrum causes the ossicles to move and amplifies sound into the inner ear.

## **The inner ear**

The inner ear is shaped like a snail shell and consists of the cochlea (the ancient word for the shell of a snail). The cochlea is lined with over 20,000 micro-scopic hair cells that convert the sound vibrations into electrical nerve pulses. These are then sent to the brain where they are interpreted into meaning.



- |                            |                                |                         |   |
|----------------------------|--------------------------------|-------------------------|---|
| 1. Pinna                   | 7. Muscle                      | 13. Eustachian tube     | 19. Vestibular nerve                    |
| 2. Earlobe                 | 8. Temporal bone               | 14. Oval window         | 20. Facial nerve                        |
| 3. Helix                   | 9. Tympanic membrane (Eardrum) | 15. Round window        | 21. Internal auditory canal             |
| 4. Antihelix               | 10. Malleus                    | 16. Cochlea             | 22. Utricle & Sacculae (Otolith organs) |
| 5. External auditory canal | 11. Incus                      | 17. Semicircular canals |   |
| 6. Cartilage               | 12. Stapes                     | 18. Auditory nerve      |   |



## WHAT IS SOUND?

Sound is caused by vibrating air (particles). These vibrations move through the air as sound waves. A good example is when the wind blows the leaves on a tree - their movement forces the air particles to vibrate. These sound waves are sent through the air to your ear, causing your eardrum to move.

The ear then converts these into electrical signals where they are translated by your brain into meaningful sound.

We determine the type of sound by the speed of the vibrations known as their frequency. Slow vibrations (low frequency) are heard as deep tones, such as thunder, while fast vibrations (high frequency) are heard as high tones, such as birds chirping.

# TYPES OF HEARING LOSS

There are two main types of hearing loss, conductive and sensorineural.

## **Conductive hearing loss**

This type of hearing loss occurs when sound waves are hampered from reaching the inner ear. This can be because of factors such as an accumulation of earwax, fluid in the middle ear as the result of a cold, or perforation of the eardrum.

In many cases, conductive hearing loss can be treated; however medical procedures may not fully reverse the loss and in those cases a hearing aid can be beneficial.

## **Sensorineural hearing loss**

This type of hearing loss is the most common. It is caused by damage to hair cells in the inner ear or the nerve endings that send signals to the brain. Sensorineural hearing loss can rarely be treated by medical procedures but can often be helped with hearing aids.

It is also possible for both a conductive and sensorineural hearing loss to occur together; this is referred to as a mixed hearing loss.

# COMMON CAUSES OF HEARING LOSS

## **Age-related**

Age-related hearing loss is commonly caused by changes in the inner ear that occur as we grow older. Your hair cells, for example, can deteriorate or even disappear over many years and they do not regrow. Factors such as your medical history, certain medical conditions and repeated exposure to loud noises may play a role in contributing to age-related hearing difficulties.

Around half of all those over the age of 75 have some degree of hearing loss.

## **Noise-induced**

A common cause of hearing loss is prolonged exposure to noise or the impact of an intense noise such as an explosion. There are many ways we can be exposed to excessive noise, from work-place environments to loud music. That is why it is important to take good care of your hearing.

## **Ear wax**

Your ear canal continuously produces ear wax (known as cerumen). Ear wax cleans, lubricates and protects the lining of the ear by trapping dirt and repelling water and without it, the skin inside your ear

would become dry, cracked, infected or waterlogged and sore. Excess cerumen is usually expelled from your ear naturally. However, if too much ear wax accumulates in the ear canal it can cause a blockage. If that occurs, a medical professional may need to be consulted.

## **Hereditary**

A hereditary hearing loss may already be present from birth or develop later in life. It is not necessarily present in either of the parents. Great progress has been made in recent years to identify the genes involved with hereditary hearing loss.

## **Signs of hearing loss**

- Does it sound like people mumble when they are talking?
- Do you often misunderstand what people tell you?
- Is it difficult for you to understand speech in noisy places?
- Do you find it difficult to work out which direction sounds are coming from?
- Do you have trouble hearing when on the phone?
- Are you often told you have the TV volume turned up too loud?

**If you answer 'yes' to more than one of these questions, you should seek advice from bloom™ hearing specialists.**

# HOW DO WE PROTECT OUR HEARING?

We live in a noisy world. We are exposed to all kinds of sounds, at work and leisure, as well as the sound of traffic. Continuous and repeated exposure to loud noise will harm your hearing.

The best we can do for our hearing is to avoid excessive noise. This can be difficult, but there are several important steps we can take:

- Be aware of the potential sources of noise and strive for a healthier sound environment.
- “Listen” to your ears. If loud sounds feel uncomfortable or painful, your ears are telling you that the sound could be causing damage.

- Wear hearing protection when you are in very noisy environments. There are a great variety of products available that can be used to block out noise.
- At music festivals and concerts where the sound level is often uncomfortably loud, it is a good idea to use earplugs. Even these tiny, discreet devices can offer significant protection.

At bloom™ hearing specialists, we can advise you about hearing protection. We stock a range of ear protection equipment and can provide you with the best individual ear protection solution.



# HOW HEARING LOSS CAN AFFECT YOU

A hearing loss can have a far reaching affect on your life. It can be harder to distinguish between speech and noise, and if communicating becomes more difficult, you may find yourself feeling frustrated and isolated. You may also face challenges at work and in your social life and perhaps feel less inclined to join in as you did previously.

A hearing loss also has an affect on those around you. Friends and family may grow frustrated in having to repeat themselves, as well as share an understandable concern for your wellbeing.

That is why it is important to ensure they are involved as much as possible in the way you deal with your hearing loss.

However, you are not alone. One out of six Australians are affected by hearing loss. Today, most can be helped by effective solutions.



“My experience with bloom™ staff and your quality products has been life changing. The professionalism, technical resources and focus on my specific needs, together with the excellent after care service provided, have resulted in a positive solution to my listening environment. The natural sound, clarity, program choices, fitting discreteness and ease of use of your products, makes every day an enjoyable time with family, friends and life in general.”

Barry Filewood, NSW

# DOING SOMETHING ABOUT YOUR HEARING LOSS

If you think you have a hearing loss, you should consult a hearing care specialist. The friendly staff at bloom™ can assess your hearing to determine if there is a problem and help you with advice.

## **What to expect at bloom™**

Firstly, our hearing specialists will ask you about your hearing – for example, any challenges or problems you may face, and if your hearing affects the things you enjoying doing. They will also ask you about your daily listening situations and experiences.

They will conduct a hearing test which provides the hearing specialist with

information about your hearing, the degree and type of hearing loss and how well you can perceive speech.

The next step is to play you a series of tones through headphones. You will be asked to indicate when they are heard. This information is then recorded on an audiogram.

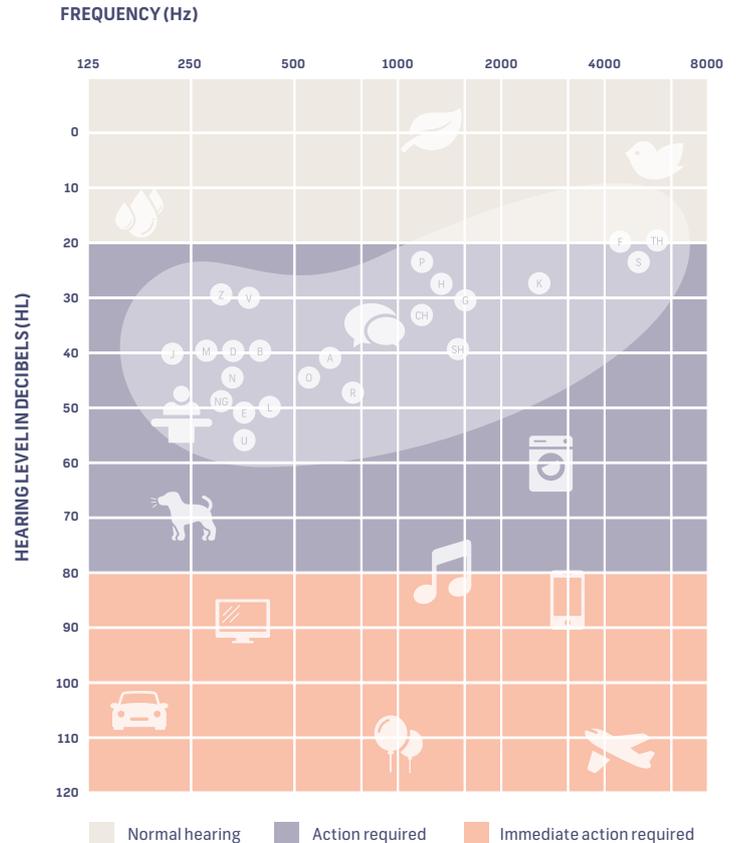
Lastly, based on your own input about every day listening situations and any possible challenges you may face, our hearing specialists will suggest the appropriate solutions.

## Audiogram

An audiogram is a graphic illustration of the results of your hearing test. It is a grid with two scales: frequency and intensity.

A low frequency sound refers to sounds like thunder while a high frequency sound can be birds chirping. Frequency is measured in hertz (Hz). Humans can hear a wide range of frequencies; young people with normal hearing can hear from 20 Hz right up to 20,000 Hz. Intensity refers to the loudness of sounds and is measured in decibels (dB).

*The shaded area above is known as the 'speech banana' and is the range on an audiogram that covers the frequencies and decibels that are need to understand speech.*



# HEARING AIDS

If your hearing consultation shows that you have a hearing loss, the hearing care professional may recommend that you use hearing aids.

A hearing aid is an electronic battery operated device that amplifies sound. A microphone in the hearing aid picks up sound and converts it to electrical signals. These are then amplified and processed, and sent back to a receiver or loudspeaker where they are converted back to sounds that you can hear.

Hearing aids today have benefited from the rapid improvement in digital technology and are small enough to be virtually invisible while retaining incredible processing

power and sound quality. For example, they can be tailor-made to suit your individual hearing loss and listening needs. They can automatically reduce noise and recognise and enhance speech.

The latest advancements in wireless technology mean that many hearing aids can communicate with each other, and other devices such as TV's, music players and mobile phones, in real time.



# TYPES OF HEARING AIDS

## Behind the ear devices

Behind-the-ear (BTE) hearing aid consists of two parts – the hearing aid housing (and all its electronic components), which sits behind the ear, and an ear-mould that is formed to fit into the ear. Amplified sound from the hearing aid is directed through a thin, plastic tube between the hearing aid housing and the earmould. A BTE hearing aid is best if you have a severe hearing loss or very small ear canals (where it is difficult to place an entire hearing aid in your ear).

## In the ear devices

In-the-ear (ITE) hearing aids, have all electronic components completely contained within a casing that fits into the ear. The size of the device depends on the degree of your hearing loss and the shape of your ear canals.



## Behind the ear devices

### Receiver-in-canal (RIC)

With RIC models, the housing is placed behind the ear and the receiver or loudspeaker is directly in the ear. This maintains power while reducing size.



### Behind-the ear (BTE)

The housing sits behind the ear. The ear piece anchors the device to the ear canal.



## In the ear devices

### In-the-Ear (ITE)

Sits in the ear, featuring on board controls.



### In-the-canal (ITC)

A smaller version of the ITE without controls.



### Completely-in-canal (CIC)

Very small and sits deep in the ear canal and is therefore less visible.



### Invisible-in-canal (IIC)

Fully automatic device that sits deeply in the ear canal and is the least visible.



## OUR PRODUCTS & SERVICES

- Hearing assessments
- A wide selection of the latest digital hearing devices for adults
- Hearing aid fittings
- Hearing aid repairs and services
- Hearing device accessories
- Hearing rehabilitation and ongoing support
- WorkCover assessments and rehabilitation
- Pre-employment hearing tests
- DVA assessments
- Monitoring of industrial hearing loss
- Ear plugs for noise protection and swimming
- Hearing device batteries
- Hearing device care products
- Mobile phone connectivity

## AUSTRALIAN GOVERNMENT HEARING SERVICES PROGRAM

The Australian government, through the Office of Hearing Services program, allows bloom™ to provide eligible pensioners and veterans with FREE hearing aids and services.



# FREE TEST, FREE FIT & FREE TRIAL



## **FREE Test**

In order to find out more about your hearing, a bloom™ hearing specialist will provide you with a free hearing test. Your hearing test will be completely painless, simple and non-invasive. It will take approximately 10 minutes and is the first step to determining whether you may have a hearing loss.

## **FREE Fit**

If your test results indicate that you may benefit from hearing devices, your hearing specialist can suggest appropriate models to trial. This fitting will take approximately 15 minutes and involves your hearing specialist adjusting the settings on the selected hearing device(s) to meet your personal needs.

## **FREE Trial**

You can then experience a free trial in store so you can hear what a difference a bloom™ hearing solution can make. You will be given the chance to see exactly how these devices improve your hearing, as well as how they feel.

Your hearing specialist will show you how the devices function in different acoustic environments and also how modern hearing aids can be wirelessly connected with telephones, mobiles and the TV!



# OUR COMMITMENT

At bloom™, we believe that no-one creates better hearing solutions than our customers.

We take pride in involving our customers, we listen and learn. We are honest, direct and work tirelessly to support them. Above all, we help empower them to take responsibility for their hearing.

We have over 250 locations across Australia.

Visit your local bloom™ store today for a complimentary hearing health check\*.

\* Offer not valid to those under 26 years of age and conditions apply to clients under the Commonwealth Hearing Services voucher system.



# One simple step can get you closer to better hearing.



Take our **FREE**  
online hearing test



Book an appointment online  
[bloomhearing.com.au](https://bloomhearing.com.au)



Call  
**1800 777 659**



**bloom**<sup>™</sup>  
hearing specialists

the best way  
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