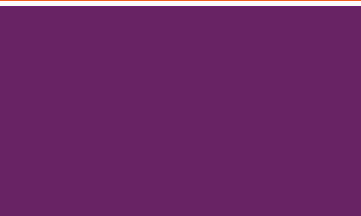


About Hearing and Hearing Loss



Where is your hearing today?

If you were to pause for a moment to consider how good you are at listening and communicating in different situations, how would you rate your abilities? If you sometimes find it hard to keep up, and you often feel tired and overwhelmed, it is important to consider the cause. Do family or friends complain that you are not listening? You might be in great shape physically - but what kind of condition is your hearing in?

This booklet provides insight into how your hearing works and how to spot the telltale signs of hearing loss. This information will help you make the right decisions when it comes to looking after your hearing.

A hearing loss does not have to prevent you from enjoying life, and it will not - as long as you do something about it now!



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Why you should treasure your hearing

Of all the five senses, our hearing is perhaps the most precious. Deprived of this, we lose contact with the people we love and the world in general.

Consider all the sounds you encounter, every single day: friends chatting, children laughing, a favourite song, a loving remark. It is this invigorating, informative symphony of sounds that makes life richer.

As well as helping us communicate and socialise, our sense of hearing helps to keep us safe. A fire alarm ringing, a car honking its horn, or a child shouting "Help!" are just a few examples of vital signals that we need to be able to hear.

We rely on our hearing in so many ways, which is why we should treasure and protect it.



Is this you?

Do you suspect that your hearing is not as good as it used to be? For instance, do you find yourself having to look directly at people's faces to understand what they are saying?



Don't be the last to know

Hearing loss can creep up so slowly that the person affected is often the last one to know. In fact, friends, co-workers or family members are likely to spot the problem before you do. They might say, "You are not listening to me." They may get annoyed because the TV is too loud. And they might wonder why you do not react when a friend calls you or when the doorbell rings.

The real problem is often not the condition itself - but that we do not

recognise it and do something about it early on. To avoid this fate, you need to be able to recognise the signs and get your hearing checked.

People get their eyes and teeth checked on a regular basis, so why not add your ears to the maintenance list? It takes less than an hour to assess your hearing health - and the sooner a hearing loss is detected, the better.

Did you know that more than 500 million people worldwide experience some degree of hearing loss? About half are of working age.

What causes hearing loss

Hearing loss is often associated with advancing age, but this is not always the case. Although it can strike people at any age, the condition most often appears after the age of 65. But it can also be caused by infections, injury or birth defects.

Age-related hearing loss

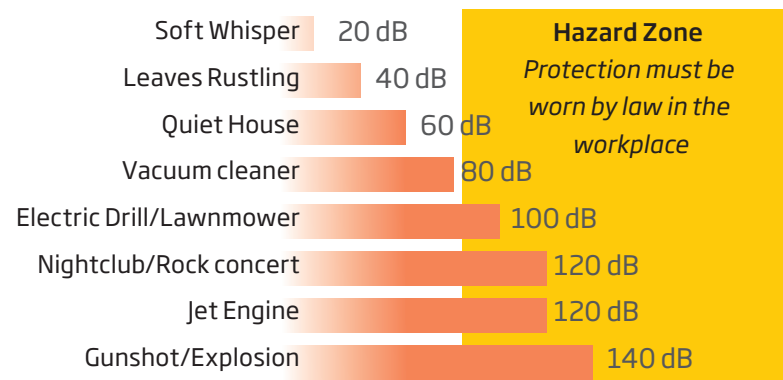
As we get older we may lose our ability to hear softer, high-pitched sounds. Birdsong is fairly easy to live without, but getting by when you lose some of the building

blocks of speech is a far more challenging affair.

Noise-induced hearing loss

This is often caused by over-exposure to excessive noise. It threatens the hearing of military personnel, police officers, construction workers, factory workers, farmers, dentists and kindergarten teachers - to name but a few. Rock concerts and MP3 players can also damage people's hearing.

Everyday Sources of Noise



Regular exposure to loud noise will accelerate hearing loss. Even transient loud noise, such as the sound of a hammer, can cause permanent damage to your hearing. Always wear ear protectors if you are exposed to excessive noise.

Types of hearing loss

In general, there are three types of hearing loss: conductive, sensorineural or mixed hearing loss (a combination of both).

Conductive hearing loss

Conductive hearing loss is caused by problems in the outer and middle ear, which can prevent sounds getting through to the inner ear. The most common cause can be a build-up of wax in the ear canal, perforated eardrums, fluid in the middle ear, or damaged or defective ossicles (middle ear bones).

Sensorineural hearing loss

This type of hearing loss happens when the delicate sensory cells or nerve fibres in the inner ear get damaged. This stops them transmitting sound properly. The most common causes of sensorineural hearing loss are the natural process of ageing or excessive exposure to noise. This condition is in most cases permanent.



Did you know that over time, part of the ear's delicate mechanism can break down or simply wear out? Some people experience a significant loss of sensory cells at the age of 50, while others only have a negligible loss even at the age of 80.

How your hearing can change

Even with a hearing loss you might feel that life sounds just as loud as ever. Some sounds - like a lawnmower - remain audible while others become harder to hear. Take the voices of women and children, for instance. You will have to work doubly hard to follow what they are saying, as their voices are softer and higher pitched than men's voices.

Our hearing gets weaker over the years, it basically starts to

decrease before you become a teenager. It is a very slow process, therefore it is difficult to recognise.

Knowing more about what to be aware of will help you monitor your own reactions: If you find yourself saying "What?" and "Sorry - could you repeat that?" you will know that it is time to take action and get your hearing tested.



Is this you?

Do you have difficulty hearing someone calling from behind or from another room? And do you try to avoid talking on the phone?



How we hear sounds

Sounds can be described as loud or soft, high-pitched or low-pitched. A violin, or birds singing are examples of high-pitched (or high frequency) sounds, while a double bass, or traffic in the street are examples of low-pitched (or low frequency) sounds.

Keeping up with speech

What makes speech so hard to follow with a hearing loss is that it involves so many different sounds in a rapid flow. The softer, high-pitched consonants such as 'f', 's' or 't' can be drowned out by the louder, low-pitched vowel sounds - such as 'a', 'o' and 'u'. So if someone says "statue" and all you can hear is "s_a_ue", you will be forced to try and guess the rest - by which time the conversation will have moved on.

At meetings and social events there is nothing worse than having to ask people to repeat themselves. You might blame others for mumbling, when it is actually your hearing that is at fault. Communication will become increasingly difficult, until eventually you will withdraw from social situations completely.



Did you know that sounds such as birdsong, footsteps, and leaves rustling in the wind are some of the first to fade away unnoticed?

If you are missing these everyday sounds, you may also be missing key speech sounds, which makes words sound muffled and blurred.

The emotional impact of hearing loss

We all want to feel in control of our lives. We all want closely-knit families, loyal friends, and active lifestyles with interesting pastimes. But when you allow a hearing loss to go untreated, you put all these life qualities at risk.

You may start to experience all sorts of emotions - from worry and embarrassment to sadness and loneliness. You will also feel tired and irritable from having to concentrate harder.

Left unattended, hearing loss can lead to feelings of isolation and depression.

Happily, things do not have to get out of control. Surveys show that treating a hearing loss has a positive impact on people's physical and emotional well-being. There is no doubt that taking the responsibility to look after your hearing will turn your life around!

Did you know that, left untreated, hearing loss can lead to social and psychological problems? Inter-personal relationships suffer, self-esteem diminishes and feelings of isolation increase.



How hearing loss can affect people

Hearing loss does not only strike yourself; it hits the people with whom you interact. Whether through meaningful conversation or playful teasing, the exchange of ideas suddenly becomes slower and far more tedious.

Imagine having your best friends over for dinner. You try to follow what they are saying, but their voices sound blurry. When they are telling jokes you strain to catch the punch line. You laugh when they do - but you did not really get it. And in the end you just drift away.

Your partner and family are expected to show compassion and consideration - but they do not really understand your problem and they may not always have the time and energy. Rather than waiting for them to run out of patience and push you into taking action, why not take the initiative and set the pace yourself?

Is this you?

Have family, friends or colleagues made any comments about your hearing? And do they often have to speak loudly or say things twice?

Recognising the signs



Like so many things in life, our hearing changes, but the transition to a quieter world happens so slowly that it can easily go unnoticed. That is why it is important to be able to recognise the telltale signs.

The questions on the following page cover a whole range of everyday listening situations. If any of the problems listed seem to apply to you, you should contact a hearing care professional for a consultation.

Is this you?

Can you see birds in the trees - but not hear them chirping? Watch a tap leaking - but not perceive the falling droplets? Turn on your PC without registering it whirring into life?



Do a quick self-check

These questions will allow you to make a quick assessment of your hearing.

	Yes!	No!
Do people seem to be mumbling?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have to strain to hear when someone talks or whispers?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have difficulties hearing someone call you from behind or from another room?	<input type="checkbox"/>	<input type="checkbox"/>
Do you need to watch a speaker's lips more closely to follow the conversation?	<input type="checkbox"/>	<input type="checkbox"/>
Do you find it hard to keep up in meetings, in restaurants, or in lectures?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have to turn up the volume on the TV or radio?	<input type="checkbox"/>	<input type="checkbox"/>
Do you find it hard to hear clearly on the telephone?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have difficulties hearing at the theatre, cinema or other entertainment venues?	<input type="checkbox"/>	<input type="checkbox"/>
Do you find it hard to hear in noisy environments like in the street or in a car?	<input type="checkbox"/>	<input type="checkbox"/>
Do you tend to limit your social activities because it's difficult to hear and communicate?	<input type="checkbox"/>	<input type="checkbox"/>
Do family, friends, or colleagues mention that they often have to repeat themselves?	<input type="checkbox"/>	<input type="checkbox"/>

If you end up answering 'Yes' to some of these questions, do not be disheartened. It does not mean that you have a hearing loss - you might just have severe earwax! Only a hearing care professional can tell you for certain.

Visiting the experts

Visiting a hearing care professional is a huge step towards better hearing - and it is easier to take than you might think. It does not take long. It does not hurt. Remember to take someone with you to keep you company and to help you remember what is being said.

Before the appointment it is a good idea to make some notes regarding your family life, social life and

hobbies. And consider some specific situations in which you would like to hear more clearly.

Lots of people have difficulty hearing speech in noisy places such as meeting rooms, parties, restaurants, supermarkets, etc. Once you have decided which situations are important, list them in order of priority, ready to discuss with your hearing care professional.



Did you know that it takes less than an hour to get an accurate evaluation of your hearing? And that the process is completely painless?

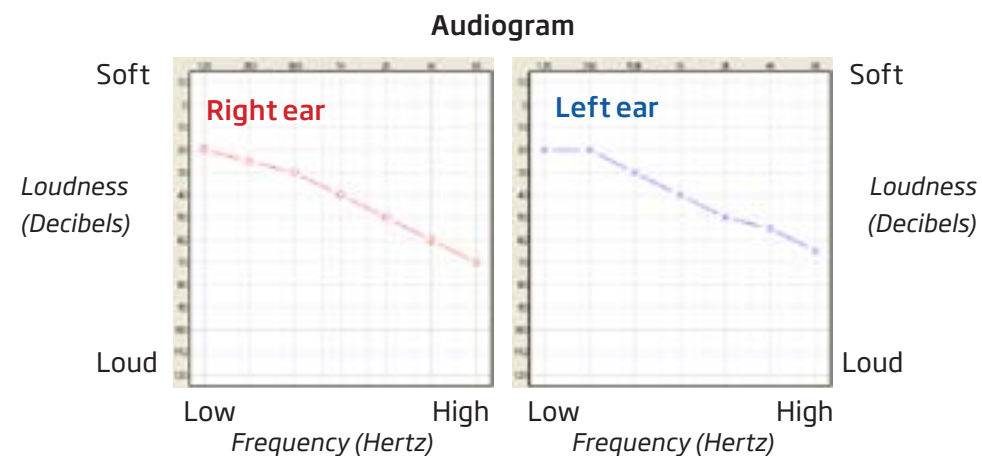
What a hearing test can tell you

When you visit a hearing clinic you will be in caring hands. Trained audiologists will be ready to deal with your concerns and give your hearing a full check up. The test itself takes place in a quiet room or a sound-proof booth, where you will put on a headset, sit comfortably, and listen.

The audiologist will play a series of pure whistling tones - from bass through to treble - and you will press the buzzer when you can hear

them. The results of this very simple test will be recorded as an audiogram (a line of x's and o's). From these markers the audiologist will be able to tell you:

- How much you can hear in each ear.
- How well you hear the loudness and pitch of different sounds.
- What impact this has on your ability to communicate.



The audiogram is a simple graph showing the sounds you can or cannot hear.

How the ear functions

The human ear is a precisely tuned system with a sensitivity and range that easily outperforms the most elaborate sound system ever manufactured. The ear contains many physiological mechanisms, and a breakdown or disruption in any of these can result in hearing difficulties.

Fortunately, in most cases you can improve your hearing by wearing hearing instruments.

The anatomy of the ear

The ear is made up of three different parts.

The outer ear:

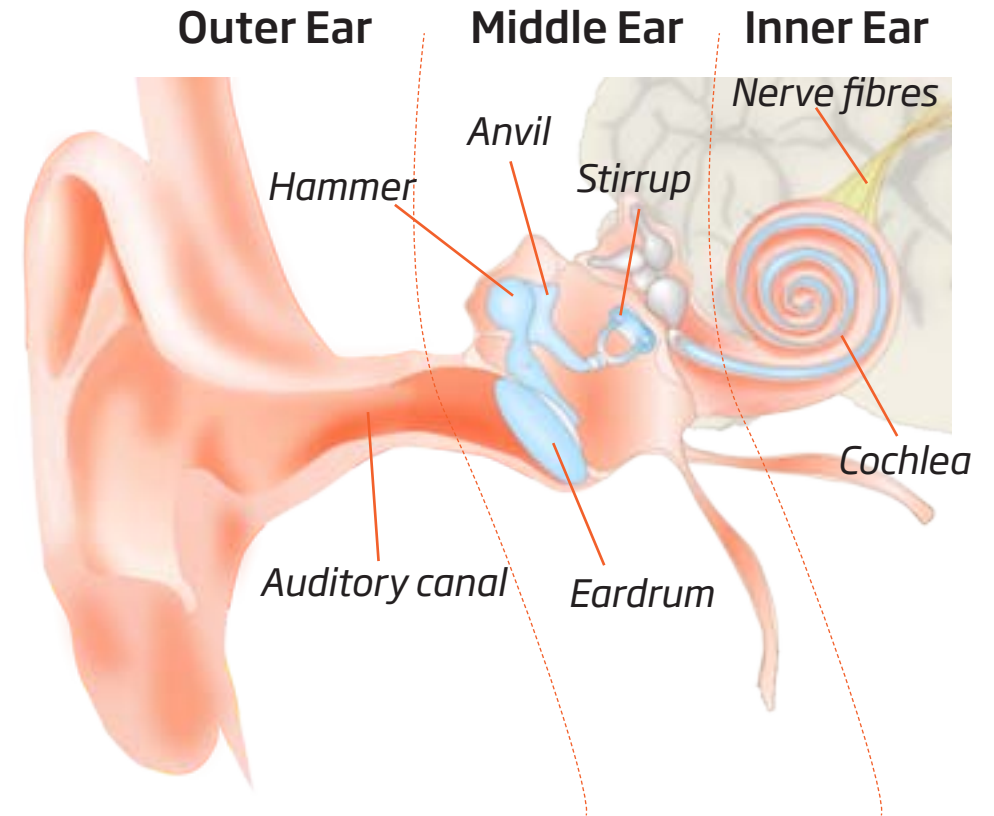
The shape of the outer ear helps to collect the sound waves and direct them through the auditory canal to the eardrum.

The middle ear:

Contains the eardrum and three tiny bones: the Hammer, Anvil and Stirrup (also called the Malleus, Incus and Stapes). These amplify the sound waves.

The inner ear:

Sound waves are changed into electrical impulses by the cochlea. There are tiny sensory cells along the entire length of the fluid-filled cochlea. The cochlea transmits the message via the nerve fibres to the area of the brain in charge of processing and interpreting what we hear.



Did you know that the smallest bones of the human body are found inside the ear? They are called the Hammer, Anvil and Stirrup.

Your next step



Making the decision to have your hearing tested is the first step towards improving your quality of life. Just think what it would mean to you and your family if you could:

- *Hear and understand much more.*
- *Laugh with - and get closer to - the people you love.*
- *Feel relaxed rather than drained after a long conversation.*
- *Hear and understand the soft voices of children.*

- *Enjoy birdsong and the rustle of leaves in the wind.*
- *Tell where sounds are coming from.*
- *Listen to TV or radio at a normal volume.*
- *Be the first to answer the telephone instead of the last.*
- *Keep up and participate in meetings.*

If, like us, you feel your hearing is worth fighting for, call your local hearing clinic for a consultation. Be good to yourself, and take that next step straight away!

For more information on hearing and hearing loss please visit:
www.oticon.com



People First

People First is our promise
to empower people
to communicate freely,
interact naturally and
participate actively

Hearing Care Professional:

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