A Guide to Hearing loss, Aids and Hear4u

Information appropriate to advise customers.

Any questions received from potential customers, are most likely to be covered within this document. Any further questions can be answered either by visiting our website or telephoning us.

www.hear4u.co.uk

0845 644 5663 or 01455 273787

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Many of us wear glasses to correct a flaw in our vision, yet people often feel that wearing hearing aids to correct a flaw in their auditory ability is an outward visual sign of weakness. If people realised how common hearing loss is, would they wear hearing aids more readily?

People today put even greater stress on their ears than ever before. Earlier generations did not have personal stereos or go to high dB output music concerts. Years ago people would have worked with hand tools but these days even our home tool kits contain a plethora of noisy power tools. Unrelenting exposure to these common daily sounds do damage to our hearing! Young people today seem hell bent on destroying their hearing. Hearing loss is common and it seems it will become even more so.

If hearing loss is so common then, why is there such a stigma? Why do we often hear the words deaf and daft used in conjunction? Could it be because people with hearing problems often mishear what is said and then give a response that is out of context? Is it not better to wear a hearing aid and respond intelligently? These days with mobile phones and personal stereos it is more acceptable to wear something in your ear, but better still, many of today’s hearing aids are very discreet. We have hearing aids that are tiny and fit deep inside the ear canal which are almost undetectable. We also have tiny behind the ear aids with a very fine wire which goes to the speaker inside the canal. We also have very bold and fashionable designs.

Hearing loss affects young and old though it is most common in people over the age of 40. The Royal National Institute for the Deaf estimates:

- 1 in 7 people in the UK suffer from a hearing loss to some degree (over 7.5 million people)
- More than 2 million people in the UK wear hearing aids but a further 3 million would benefit from them
- 6.5 million people over the age of 60 have a hearing loss
- Hearing loss is the most common sensory impairment in older people

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Types and causes of hearing loss

Conductive hearing losses occur in the outer or middle ear and is usually temporary or medically curable. In most cases of conductive hearing loss, a hearing aid would not normally be recommended, though a hearing aid could benefit for the period of the hearing loss.

Sensory hearing loss occurs in the inner ear (cochlea). Typically this is damage to the sensory hair cells, known as stereo cilia. Once these hair cells have been damaged there is currently no way that they can be repaired or regenerated. Sensory hearing losses are usually symmetrical i.e. a similar degree of loss in both ears. For sensory hearing loss, hearing aids are usually the best way to assist hearing. Sensory hearing losses are commonly progressive, though it is not possible to stop the progression completely; hearing aids are proven to slow down the rate of progression.

Neural hearing loss occurs in the brain or in the nerve fibres between the cochlea and the brain. Neural hearing losses are most commonly asymmetrical (i.e. a different level of hearing in ear). A hearing aid may be of benefit for a neural hearing loss. We at hear4u would refer the patient to their GP or medical specialist if we suspected that the hearing loss had a neural element. However once the medical specialist have been consulted we are happy to allow patients to trial hearing aids.

Sensory and neural hearing losses are usually grouped together because it is not possible using traditional audiometry to definitively distinguish between the two types of loss. If neural hearing loss is suspected because of significant asymmetry between the sensory neural audiometric patterns of each ear, the patient will referred to their GP or medical specialist and only after the medical specialist has approved will a hearing aid be recommended.

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Contributing factors of conductive losses

- Anything which blocks the ear canal, e.g. excessive build-up of wax (cerumen)
- Head trauma, causing perforation of the ear drum or dislocation of the tiny bones in the middle ear.
- Infection (otitis media) causing an imbalance of pressure in the middle ear. Infections can usually be cleared with prescribed medicines. It is very important to seek medical help as early as possible if otitis media is suspected.
- Glue ear, common in young children; this condition will usually rectify itself as the child grows.
- Barotraumas mostly affect divers.
- Otosclerosis, a hereditary condition.
- Scarlet fever can cause damage to both the eardrum and the tiny bones (stapes, malleus and incus) in the middle ear.

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Contributing Factors of Sensorineural Losses

- Some infections and illnesses may cause a hearing loss, for example: mumps, measles, chicken pox, meningitis, herpes zoster (shingles), rubella (German measles) tuberculosis, etc. Though it does not automatically follow that contracting any of the above will result in a hearing loss.

- Some drugs and prescription medicines can cause both permanent and temporary hearing loss. The side effects of prescription medicines will be printed on the container of a leaflet within. WE ALWAYS RECOMMEND THAT YOU CONTINUE TAKING MEDICINES but you may wish to discuss this with your GP.

- Noise damage can cause damage to the tiny hair cells (stereocilia) in the cochlea. This noise could be of a significant level over a period of time or in one single very loud blast (acoustic trauma).

- The accumulative effects of a lifetime’s wear and tear with ototoxines, environmental noises, illnesses, poor diet, abnormal blood pressure etc. Is often referred to as presbyacusis. In this type of hearing loss, the higher frequencies are affected to a greater degree than the lower frequencies. Because of the anatomy of the cochlea, this is sometimes referred to as the doormat effect.
How a high frequency hearing loss affects our understanding of speech

High frequency hearing loss is commonly found in people over 40 years of age, caused by regular exposure to loud noise or the accumulative effects of a lifetime wear and tear. This affects mostly the high frequencies or high-pitch sounds. A person with a high frequency hearing loss may have perfect low frequency hearing. Since the sounds we hear are made up of all the frequencies across the auditory spectrum, presbyacusis sufferers hear the loudness of sound, but lose the clarity of speech. They hear people speaking loudly, but cannot hear clearly what they say. They hear the low pitch vowels (the A, E, I, O< OO, AE, AW sounds in words) clearly, but they have greater difficulty hearing the higher pitch consonants, particularly fricatives and plosives, (the ss, f, th, sh, t, p k sounds in words). Consequently if we increase the levels of all sounds, increasing the already audible low frequencies has the effect of masking out the higher frequencies thus turning up the TV for example does not improve the clarity of sound.

Because this type of hearing loss comes on so gradually over many years, the sufferer adapts and acclimatises unconsciously, learning to compensate in many different ways. They subconsciously learn to watch lips and pick up clues to different parts of the word. For example the “l” in tip or pit may be clearly heard but the different shape of the lips making a “p” or a “t”, helps them to understand the word. The brain is very adept at putting missed words into the context of the sentence and we often anticipate the sentence before the speaker has finished what they are saying, but unfortunately this wonderful ability to adapt is not perfect and we often get the word wrong, much to the amusement or frustration of others.

Presbyacusis sufferers are usually the last to realise they do not hear clearly. People tell them they are mishearing, but they find it difficult to accept. They often deny they have a problem, sometimes accusing people of not speaking clearly or mumbling. The greatest difficulty presbyacusis sufferers have is difficulty understanding speech over noise or music; regional dialects and foreign accents may also cause problems.
Hearing loss affects the whole family

Hearing loss is frustrating for the whole family, especially where the person with the loss cannot accept they have a problem. These situations are common and if the person with the loss does not take remedial action it’s not unusual to result in the breakdown of relationships or marriages.

People with hearing loss frequently blame everybody close e.g. “they don’t speak clearly”, they mumble, “They walk away when they’re talking”, etc. Though it’s not difficult to understand why this is. In many cases hearing loss creeps up so gradually that the person does not notice any change in their hearing; however, if 10 years ago they went to sleep and then woke up with the hearing levels they have today, it’s likely that they would go straight to their Doctors.

WHAT CAN WE DO TO HELP

Before we can help a person with hearing loss we need to help them understand what is wrong with their hearing and help them accept that they do have a problem. If a person is still at the denial stage, any attempt to rehabilitate them is likely to fail.

We offer a FREE consultation which includes audiometric testing and a thorough otoscopic examination. This consultation may be carried out at any one of our centres or in the comfort of your own home. The primary objective is to establish if there is a hearing loss and then if a hearing loss is present to establish if there is a hearing loss and then if a hearing loss is present to establish if it is medically treatable (if it is we will refer you to a medical specialist). If we make a discovery which requires further medical investigation we will refer you...
When being tested, we at Hear4u feel that it is very important to have support from a close family member. This familiar voice may be used for a speech test and two memories are better than one for retaining all the advice and information we are likely to give you. If you do decide to purchase a hearing system it is likely to be a significant financial consideration; the best support therefore would be the person that shares these financial decisions.

If a hearing loss is present, we will explain how it is affecting your perception of speech and explain how we can help. Where appropriate we may demonstrate what it is like to hear through hearing aids. (We only recommend hearing aids when medical correction is not a viable option).

We have a huge range of hearing aids, from the very discrete to the very powerful, from the very affordable to the latest sound processing technologies. Hearing aids vary vastly in price. The range in prices reflects the differences in levels of technology and the capabilities of different hearing systems. The very basic hearing aids will help people hear better in most situations, but are limited in the way that they process sound. Acoustic feedback (whistling), background noise and the direction of sound can all be a challenge to the more basic aids. The number of channels and ands into which the frequencies are split determine how accurately the frequency response of the hearing aid can be matched to the hearing loss and how well it can control environmental noise.

We believe are prices for the technology we offer, is the best on the high street. We only fit the best manufacturers yet our prices for any given product are typically 30% below our competitors... or we offer a price match promise.