## IS ANYONE LISTENING?

# Accepting the differences between 'Deaf' and 'Hard-of-hearing.'

### Part 2

#### by Graham Weir

It is critical to understand the differences between those who regard themselves as 'deaf' and those with a partial hearing loss *(commonly referred to as 'hard-of-hearing)*. The two conditions are entirely different, and a caring church community should know how best to meet the needs of either condition.

#### Who are the "hard-of-hearing?

People who are hard-of-hearing are people who have suffered partial hearing loss. In most cases, they still function within a community with normal hearing, albeit with a higher stress level due to reduced ability to follow a normal conversation. Some with profound hearing loss may use sign language as a supplement. Most, however, will avoid using signs or in any way being seen as part of the deaf community.

#### What is hearing loss?

Hearing loss is commonly thought of as a reduction in loudness levels—something that hearing aids should quickly cure, but it is far more complex. While a decrease in loudness levels is a symptom of hearing loss, the most debilitating effect is experienced in the loss of clarity of speech sounds, particularly in areas filled with people, such as churches, halls, and shopping malls. The effect on socialization depends on several factors, such as the location and degree of the damage inside the ear's complex sound processing system. Degrees of hearing loss, with an example of a typical mild to severe loss, are illustrated in Figure 1.



Figure 1. Audiogram showing degrees of hearing loss and a typical sloping, bilateral, mild to severe loss.

In this example (see red  $\bigcirc$  and blue  $\times$ ), the ability to detect speech is worse in the 2000– 8000 Hz high-pitched range than the lower frequency range of 125 - 1000Hz. Someone with this hearing loss would hear the voices of females and children much softer and with less clarity than bass-toned, male voices. Hearing aids would undoubtedly help, but they could not restore hearing to a "normal" level. Speech recognition would still be poor in noisy situations such as a church service. A person with a loss in the profound regions across most of the entire spectrum from 125 Hz to 10,000 Hz. would be regarded as "deaf." Hearing aids would offer no significant help, although cochlear implants might offer a more effective solution.

#### Are hearing aids alone a complete solution?

While recent developments in hearing aids are remarkable and certainly do provide a dramatic improvement over an unaided condition for the hard-of-hearing, hearing aids are still only "aids," not cures. For people with mild to moderate losses, hearing aids DO solve most communication problems. But when the hearing loss is severe or worse, conversations in noisy places are usually restricted to a superficial level. <sup>(See part 1)</sup> Assistive listening systems are essential for churches that want to provide meaningful participation for hard-of-hearing people during sermons and small group Bible study classes and meetings. Why is this still the case, given the rapid developments in hearing technology today?

#### Hearing aids help in quiet places, but their effectiveness in churches is limited. Why?

When hearing is damaged by over-exposure to loud noise or by the effects of disease or aging, a significant number of microscopic hair-like cells inside the cochlear die. (see the blue area in figure 2)



Figure 2. Diagram of the inner ear showing the cochlea area in blue.

The cochlea is a snail-shell-like structure in each ear, containing approximately 20,000 to 30,000 microscopic-sized hair cells. Each of these tiny hair cells responds to minute components of sound pressure and pitch. Damage to these cells will reduce the ability to hear specific frequencies. Hearing aids cannot repair these damaged cells. They can only improve

the level and quality of sounds available from the remaining cells. Cochlear implants do a better job if the loss is severe and speech discrimination ability with hearing aids is poor enough to warrant surgery. But for many hearing aid users, a reduced ability to follow a conversation in noisy places remains.

At this time, microphone technology in hearing aids and implants still cannot match the ability of normal hearing to focus on one voice in a crowd, particularly across large halls filled with multiple speakers. The stress level of trying to understand and communicate in such environments is much higher for hard-of-hearing persons. The ideal solution lies in the informed use of assistive listening systems (A.L.D.'s). We will discuss these systems more in part three of this series of articles.

#### Who are the deaf, and how do they differ from the hard-of-hearing?

People who are deaf do not have enough residual hearing to benefit from any amplification technology. Instead, they rely entirely on a visual mode of communication such as sign language. Today, most Western countries recognize sign language for the deaf as being on a par with any other ethnic language. They are, therefore, entitled to the same levels of government-funded professional interpreting services. In its most basic form, sign language does not usually follow the precise word order of spoken languages. Instead, it tends to reflect a visual sequence of events or the order in which things happen. E.g., English: "*I am going to the shop to buy some bread*" – Sign language: "*Me* – *go* – *shop* – *buy* – *bread*." People born with total deafness will naturally develop language visually before developing spoken literacy with their surrounding spoken languages—most babies are naturally visually observant. Developing language visually instead of by hearing does not indicate a lesser intelligence.

#### Charles Darwin, Alexander Graham Bell, and the destruction of deaf education.

As with many human conditions, education is the key that opens the door of opportunity and freedom. In this sense, the history of the education of the deaf is fraught with much trauma and disruption. Much misinformation is due to Charles Darwin's theory of evolution. Darwin was a contemporary of Alexander Graham Bell, the inventor of the telephone. Bell invented the phone while attempting to create a hearing aid for his deaf wife, with whom he communicated by sign language. In his paper, *Memoir upon the Formation of a Deaf Variety of the Human Race*" (National Academy of Sciences Nov. 1883), Bell vigorously supported Darwin's theories of evolution and genetics ('Eugenics'). He proposed that "*The intermarriage of congenital deaf-mutes through a number of successive generations should result in the formation of a deaf variety of the human race.*" As a solution to this imagined national disaster, Bell proposed banning sign language among deaf people. He also advocated the removal of teachers of the deaf who were deaf themselves and used sign language to teach their pupils and to replace them with hearing teachers who would avoid signs and teach the deaf to speak and listen like people with normal hearing.

Further, he proposed removing deaf children from schools for the deaf and 'mainstreaming' them into 'normal' hearing schools. Unfortunately, many government officials accepted his ideas and rushed to implement his solutions around the world. Instead of avoiding a perceived disaster for general society, the consequences resulted in a tragic disaster for the identity of deaf people everywhere.

Forcefully deprived of the company of others who used their language and starved of nutritious, third-level communication, the deaf were forced to subsist on scraps of communication among people who regarded them as inferior humans.

The predictable result was the cruel destruction of their education and socialization for many generations – a human disaster that lasted well into the twenty-first century. Thankfully today, many deaf people can once again enjoy equitable educational, vocational, and social opportunities on a par with their normal-hearing peers - mainly due to educational institutions for the deaf in the United States, such as Gallaudet University in Washington D.C. and the National Technical Institute for the Deaf in Rochester, N.Y. A vital ingredient of this change in attitude is a teaching and communication method called 'Total Communication.' This method utilizes any communication techniques – sign language – lip-reading – oralism, etc. to ensure that deaf people have an optimal chance to engage in third-level communication with as many people as possible. It recognizes that restricting communication to any single method usually only results in a poor communication diet.

Such unfortunate history means that church leaders who are not deaf or hard-of-hearing must develop an informed understanding and ability to work with the challenges that hearing loss or total deafness imposes on people. We must do our best to ensure that barriers of ignorance, prejudice, and neglect are never allowed to impede the accessibility and participation of people who are hard-of-hearing or deaf in all of our church family activities.

In part three of this series, we will explore some practical action steps for churches wanting to ensure their welcome mats are always out for people who are hard-of-hearing or deaf.

#### **References:**

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