

Hearing Loss 101

by Ellen Pfeffer Lafargue, Au.D., CCC-A,
Co-Director, Shelley and Steven Einhorn Audiology and Communication Centers, Center for Hearing and Communication

We think of our ears as a place to rest our glasses, to adorn with earrings, and oh yes, as receptors of sound. The ear is actually made up of much more than the visible outer ear and is a complex system of bones, ligaments, fluids and nerves that make up the auditory system. Any or all of these can sustain damage from a wide variety of causes that can affect your hearing. Damage to any part of the auditory system causes hearing loss.



The result of loss of hearing for most people is interference with communication. People address communication problems through some combination of use of technology, communication strategies, and coping mechanisms. While hearing loss is not "age-related" per se, as we get older, hearing loss becomes more and more common. According to the National Institute of Health (NIH) approximately 2% of adults between the ages of 45 and 54 have hearing loss that interferes with daily life. The rate rises to 8.5% for adults between 55 and 64, 25% between 65 and 74, and 50% for adults 75+.

It is not commonly known that hearing loss does not exist in a vacuum. There are higher incidences of hearing loss in those who have diabetes, thyroid disease, kidney disease and cardiovascular disease. Hearing loss can also be caused by medications such as some chemotherapies, quinine, and even high dosages of aspirin. Anyone affected by these diseases or uses these medications should have a hearing evaluation during their annual check-up.

Untreated hearing loss can lead to increased social isolation caused by communication difficulties. Classically this can lead to depression. Hearing loss can be addressed through a combination of technology (hearing aids and other devices), communication strategies, and emotional wellness initiatives. What is not as commonly known as the social and emotional difficulties caused by hearing loss is that untreated hearing loss is associated with a higher incidence of falls, a constant threat to general health to people as they age. In addition, studies completed at John's Hopkins Medical Center indicate that people with hearing loss are five times as likely to develop Alzheimer's and related diseases (ADRD) as their normally hearing peers; and those people with ADRD and untreated hearing loss exhibit faster onset of symptoms than those who treat the loss with hearing aids, other devices and therapies. Hearing aids are the most common means of addressing hearing loss. And yet, estimates are that only 10% of those with mild and moderate hearing loss are using hearing aids.



TTN-NYC Newsletter March 2017

Hearing aids come in a variety of technologies, shapes, sizes and colors. The newest features in hearing aids include the ability to connect to your smart phone to stream podcasts, music and help hear telephone calls; and of course, there's an app for that! In the last year several manufacturers have released hearing aids with improved rechargeable systems, making the daily handling much easier. It is true, that background sounds are amplified in addition to that one voice you want to hear, but recent advances in noise reduction strategies have greatly improved the sound quality available. Hearing aid technology has improved significantly in the last few years; these are not your grandmother's hearing aids. All of the devices have one goal in common, to make what you want to hear, hearable. Putting on a hearing aid, unlike glasses, does not completely solve the problem, but it goes a long way towards making you an active participant in many communication situations.



The FDA has very recently lifted the decades-old regulation requiring medical clearance for use of amplification. This has opened the door for the availability of over-the-counter low cost amplification, called PSAPs or Personal Sound Amplification Products. These starter items may be a good entry way to

addressing the effects of hearing loss. I caution the reader to take advantage of professional help available as a guide to whether or not amplification is needed, and if it is, what types of devices would be most effective. An audiologist, a doctoral level professional, is trained to evaluate, diagnose, and provide hearing aids and is typically the key professional involved in hearing health care. Ear, Nose and Throat (ENT) physicians are specifically trained to care for individuals with medical problems in those systems, and an Otologist is an ENT physician who specializes in diseases of the ear. In NY State, other individuals can be licensed as hearing aid dispensers who are not audiologists. These individuals are certified after taking a two year course of study.

While hearing aids are the most common treatment for hearing loss, they are often not enough by themselves. Hearing aids are exactly what they sound like, an aide to hearing. That is, they help to compensate for a hearing loss; they don't cure a hearing loss. Unfortunately, even the most sophisticated hearing aids cannot solve every communication challenge and for this reason many assistive listening devices have been developed to supplement the benefit provided by hearing aids for specific situations. Television, telephone, theater, and large room listening challenges can be addressed by specific devices. The technologies sometimes fall short and can be supplemented by speech-reading (also known as lip-reading) and other communication techniques. By addressing your hearing loss, you can continue to "connect to life", the ultimate mission of those of us in the hearing healthcare field.

For more detailed information on these topics, there will be a [lecture presented by TTN with Dr. Lafargue on May 25th.](#)

