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**Expert Advice: Health & Wellness**

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In a previous article I spoke about quitting with the Q-Tips because it could impact wax and cause harm including a temporary hearing loss in the outer ear canal. Many people are aware that ear infections can cause temporary hearing loss affecting the middle ear. But, what you may not be aware of is that there is more than just aging and noise that can cause permanent hearing loss in the inner ear. What was that? Hearing loss is not just occurring in those that are getting old? That's correct! So what is it that can spur on hearing loss at younger ages? Actually, a quick way to sum it up is by saying the healthier you are, the healthier your ears are. I often tell my patients that the ear is not an island. It is connected to the rest of your body and anything that impacts your physical health may also highly influence your hearing health.

The inner ear structure has three chambers with two different fluids made up of potassium and sodium. It is highly vascular with many branches leading from the heart to both the balance organ and the hearing organ housed in the inner ear. It has approximately 20,000 hair cells requiring highly functioning metabolic and vascular pathways to feed the inner ear of the nutrients that it requires for proper functioning. When it doesn't receive this it can lead to cell damage or cell death. The inner ear is interestingly the most complex organ of the body next to the brain and it functions within a tiny package the size of your little fingertip being the cochlea.

As the cochlea is so incredibly complex, there unfortunately is no clear-cut recipe for improving hearing or preventing damage causing hearing loss. However, understanding the complex nature of the various influencing factors on hearing health may at least get you started on the right path. Potential influencing factors may be diet, vascular health, neural integrity, biochemistry, genetics, medications and lifestyle.



Research, although sometimes contradictory, has looked at the benefits of antioxidants (grapes, wine and berries, or flavonoid plant compounds), proteins that support antioxidants (cheese), vitamins A (carrots), C and E, and magnesium in prevention of cell death and even the reversal of temporary noise induced damage. Often these studies are done on lab animals or in the lab dish with astonishing results however what happens in the lab may not always happen in real life. How well the nutrients are absorbed plays a part in the benefits of dietary vitamins and polyphenols. To have the same effect we would have to eat five pounds of cheese, 1,000 bottles of wine and/or 25-250 bottles of beer a day. We do however have evidence showing that it is wise to watch both your intake of calories and fat. A Finnish study of 4000 participants over a six year period of time reported fewer heart attacks and superior hearing to those that continued to eat a high-fat diet.

My best advice is to live as health a lifestyle as possible, eat a balanced diet with a variety of fruits and vegetables, eat a low saturated fat but higher polyunsaturated fat diet, do not smoke and exercise regularly. Knowing the connection between the inner ear and how healthy you are, having a hearing test as a baseline should be a consideration for all adults. We have the capability through objective computers to show early warning signs of damage being done to the hair cells even before it manifests as hearing loss in the sound booth. When booking your audiological evaluation be sure you get otoacoustic emissions done as this is the equipment that is required to catch the early signs. Additionally, it is important to consider that a hearing loss may be a manifestation of a systematic illness. So, it can be considered an important part of a complete medical work-up. Hearing loss can be seen in those with autoimmune disease, syphilis, thyroid troubles, diabetes, high cholesterol and high triglycerides, Lyme disease, kidney disease and the list goes on. So, in addition to being as healthy as you can be, partnering with a diagnostic team of physicians and audiologists, you can feel confident that you are getting the most thorough assessment and treatment plan possible.