

## tin·ni·tus

/'tinədəs/ noun MEDICINE ringing or buzzing in the ears.

Tinnitus (pronounced as either tin-itus or ti-night-us) is best thought of as the result of your brain attempting to repair itself and failing. For many people, the ringing, whooshing, or buzzing sounds is the first sign alerting you that something is breaking down in your hearing system. It may be the result of exposure to a loud sound, it may be a side-effect of chemotherapy or other medications, or it might be due to your age. No matter what the cause, the damage to the hearing system is real and must be addressed at once.

For more than 90% of people living with tinnitus, the ringing is directly attributed to the progressive and degenerative loss of nerves connecting the ear to the brain, **aka hearing loss**. Ironically, people with hearing loss are often described as 'suffering in silence', when in fact, that is exactly the opposite of what most people with hearing loss deal with, as tinnitus can have a severe impact on living. Simply put, auditory nerves can break down from aging, genetics, noise exposure, medications, virus, etc. Additionally, nearly 15% of people who have come down with the SARS-CoV-2 (the virus that causes COVID-19) report lasting tinnitus upon recovery from infection. With damage to the neural structures, the brain will instinctively make up for the missing signal and create the false perception of sound. This 'central gain' or increase in neural activity can be altered with treatment (aka. neuroplasticity), and therefore reduce the person's experience of tinnitus. The most successful and well-documented form of treatment is to fight back against the tinnitus by restoring the neural signals with sound stimulation. When done correctly, people living with tinnitus have a 75-85% chance of living with less (or no) tinnitus.

If you or your loved one are suffering from

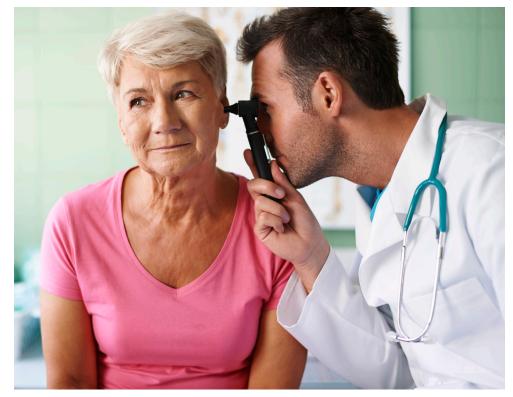
any, several, or all of the following early indicators of tinnitus and hearing loss, consider having them addressed by a hearing healthcare specialist sooner rather than later:

1. Noises in Your Ears or Head: Tinnitus is the internal alarm letting you know something is wrong. If left untreated, it will get worse. Tinnitus can interrupt your sleep, cause headaches, and increase stress and frustration.



- 2. Difficulty Hearing Others: The sounds of tinnitus often get in the way of hearing others, especially in noisy situations. Being left out of the conversation can be frustrating and embarrassing.
- 3. Memory Issues: As the nerves break down and cause tinnitus and hearing loss, the individual is at increased risk memory loss, cognitive decline and dementia. Even those people who believe that they have tinnitus and "normal hearing" must be concerned as even a mild hearing loss can increase the risk of dementia by 200%. Early signs that hearing loss and tinnitus may be impacting your memory include:
  - memory loss that disrupts daily life
  - challenges in planning or problem solving
  - difficulty completing familiar tasks
  - problems identifying words and names
  - misplacing things
  - withdrawal from others
  - changes in mood and personality

If you notice any of these signs in yourself or your loved one, **do something about it, today!** The right hearing healthcare provider understands the importance of early intervention.



## **Treating Tinnitus:**

Unfortunately, too many patients are told *'there is nothing you can do about your tinnitus'*. **This is not true.** While there is no cure (as there is also no cure for cancer, heart disease, diabetes, COVID, etc.) there is an abundance of well-documented research, and F.D.A. approved treatment options available to reduce, and in some cases, eliminate, the ringing.

## The approach to treating tinnitus is very logical:

If you activate the damaged nerves that connect the ear to the brain, the 'central gain' will decrease, thus you will perceive less tinnitus. The most effective form of direct treatment is NeuroTechnology<sup>™</sup> and is both F.D.A. approved and effective in nearly 80% of patients. In fact, recent reports that investigated the impact of tinnitus treatment on sleep, concentration, work, and when hearing others in a conversation have all noted dramatic reductions of the impact of tinnitus on everyday life.

Although a limited number of people with tinnitus do not have documented hearing loss, newly available NeuroTechnology™ is also designed to help these people. Many studies show that patients who use tinnitus support technology note a significant reduction in their daily tinnitus experience – with some even reporting that 'the ringing is gone all day.'



## Dr. Keith Darrow, PhD, CCC-A M.I.T. and Harvard Medical Trained

Neuroscientist and Clinical Audiologist

Dr. Darrow is a Harvard Medical School and M.I.T. trained neuroscientist and clinical audiologist. He is a professor at Worcester State University and Certified Alzheimer's Disease and Dementia Care Trainer. His book, *Stop Living In Isolation*, is an Amazon.com #1 New Release and Best Seller.