

Hearing Loss Assessment and Treatment

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Speaker Disclosure

Indiana Hearing Specialists offer the sale of hearing aids manufactured by Oticon, Phonak, Starkey and Resound. Please note all relevant financial relationships have been mitigated.

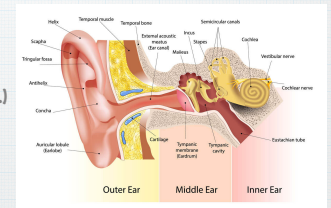
Overview

- * Types of hearing loss
- * Hearing loss in the geriatric population
- * Signs and comorbidities of hearing loss.
- * Cognitive concerns with hearing loss

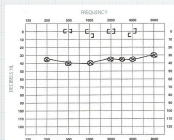


Types of Hearing Loss

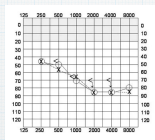
- * Four types of hearing loss
- * Conductive Hearing Loss (CHL)
- * Sensorineural Hearing Loss (SNHL)
- * Mixed Hearing Loss (MHL)
- * Auditory Neuropathy Spectrum Disorder (ANS/D)



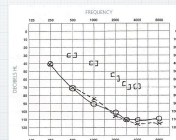
Audiogram Examples



Conductive



Sensorineural



Mixed

Hearing Loss in the Geriatric Population

- * Presbycusis - age - related hearing loss
 - * 1 in 3 people 65 to 74 years of age experience hearing loss, with over half experiencing hearing loss 75 years of age and older (U.S. Department of Health and Human Services)
 - * Starts as a high frequency hearing loss and progresses
 - * Permanent damage to the inner ear structures
- * Causes of Presbycusis:
 - * Age
 - * Noise Exposure
 - * Genetics

Hearing Loss and Comorbidities

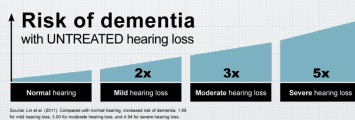
- * From the American Speech - Language - Hearing Association, hearing loss is the third most common chronic condition for older adults.
- * Health conditions that may be risk factors for hearing loss:
 - * Diabetes
 - * High Blood Pressure
 - * Heart Disease
 - * Sleep Apnea
 - * Kidney Disease
 - * Some medications (chemotherapy drugs)

Hearing Loss and Comorbidities cont.

- * Patients with hearing loss have consequences of:
 - * Depression
 - * Anxiety
 - * Cognitive decline
 - * Dementia
 - * Falls
 - * Unintentional injuries

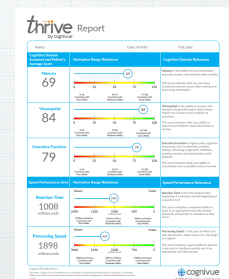
Dementia and Hearing Loss

- * Increased research suggests a correlation between hearing loss and cognitive decline
- * Hearing loss increases atrophy in the brain
- * The more severe of hearing loss, the increased risk of poorer cognitive function



Cognivue Testing

- * Complete an assessment with Cognivue
- * Evaluates three cognitive domains:
 - * Memory, Visuospatial, and Executive Function
- * Two speed performance domains:
 - * Reaction time and processing speed
- * Results give us a baseline of cognitive ability, while showing areas that may be of a concern.
- * Complete these assessment yearly to monitor cognitive status.



Signs and Symptoms of Hearing Loss

- * Tinnitus, or ringing in the ears
- * Difficulty hearing other people clearly and misunderstanding, especially when background noise is present.
- * Asking people to repeat themselves
- * Hearing the television, radio, or talking on the phone.
- * Not engaging in social activities, choosing to stay isolated.



Tinnitus

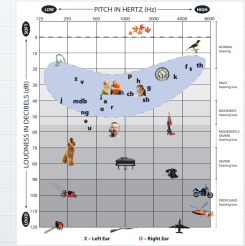
- * Defined as a sound or noise that someone hears in one or both ears.
- * Typically caused by an underlying condition, such as hearing loss, ear injury, or a problem with the circulatory system.
- * Impacts every person differently. For some, it may be periodic. For others, tinnitus may be constant and bothersome.
- * Red Flags for Tinnitus:
 - * Pulsating tinnitus
 - * Unilateral tinnitus
 - * Impacting every day life / being able to sleep

Ways to Treat Tinnitus

- * Monitoring diet:
 - * Reduction of sodium intake
 - * Limiting caffeine, alcohol, and nicotine use
- * Adjusting lifestyle:
 - * Quality of sleep and sleep schedule
 - * Stress
- * Properly fit hearing aids and / or masking devices
- * Different counselling tools and potential Cognitive Behavioral Therapy (CBT) if needed

Hearing Loss Severity Example

- * CDC Hearing Loss Simulator:
 - * <http://www.cdc.gov/niosh-mining/hlsimweb>



Citations:

- * U.S. Department of Health and Human Services. (n.d.). Age-related hearing loss (presbycusis) - causes and treatment. National Institute of Deafness and Other Communication Disorders. Retrieved April 19, 2023, from <https://www.nidcd.nih.gov/health/age-related-hearing-loss#:~:text=It%20is%20one%20of%20the,than%2075%20have%20difficulty%20hearing.>
- * The Hidden Risks of Hearing Loss. (2022, November 1). The Hidden Risks of Hearing Loss | Johns Hopkins Medicine. <https://www.hopkinsmedicine.org/health/wellness-and-prevention/the-hidden-risks-of-hearing-loss>

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