



# Can Hearing Loss Increase the Risk of Dementia?

By Dr. Mitchell Worley, Spartanburg/Greer ENT & Allergy

Hearing loss is a common medical problem impacting over 38 million Americans. Though people of all ages are affected by hearing loss, older adults are more often affected. Around one-third of adults age 65-74 have hearing loss, and nearly half of adults over age 75 have hearing loss. In the past, hearing loss has sometimes been mistakenly thought of as a normal result of aging. However, research in the last decade has begun to identify hearing loss as a risk factor for the onset of dementia. Researchers from Johns Hopkins University found that older adults with hearing loss are more likely to be diagnosed with dementia in follow up than similar older adults without hearing loss. The more severe the hearing loss, the greater the risk of future dementia diagnosis. In some adults with severe hearing loss, the risk of dementia diagnosis increased five-fold compared to similar adults without hearing loss.

How could hearing loss increase the risk of a dementia diagnosis? Hearing difficulties in adults are associated with increased social isolation, reduced independence, and increased risk of anxiety/depression. These factors may predispose adults with hearing impairment to develop dementia. Hearing loss may also require the brain to spend an increased amount of energy focusing on processing sounds and words and leave less available working memory for other important cognitive functions. Hearing impairment also appears to be associated with loss of gray matter in regions of the brain associated with auditory and language

processing. Our understanding of the relationship between hearing loss and dementia has advanced tremendously in the last several years, but significant research questions remain.

The role of hearing aids and hearing rehabilitation in preventing the development of dementia in adults with hearing loss is one question requiring more research. A provocative study published in 2019 found that older adults with hearing loss who wore hearing aids had a smaller chance of being diagnosed with Alzheimer's disease or dementia, a smaller chance of developing anxiety/depression, and had lower rates of falls compared to adults with hearing loss who did not wear hearing aids. While these findings were certainly promising for the benefits of hearing aids, the results were quite preliminary. A large multi-center clinical trial is currently underway to investigate the role of hearing aids and hearing

amplification in slowing rates of cognitive decline among several hundred older adults.

Despite the known benefits of hearing aids and hearing amplification in helping adults with hearing loss to communicate, access to hearing aids remains a challenge. Currently, less than one in six adults that would benefit from hearing aids have ever used them. As we begin to better understand the complex relationship between hearing loss and cognition, it is imperative that we improve access to hearing amplification among those who need it most.

In some adults with severe hearing loss, the risk of dementia diagnosis increased five-fold compared to similar adults without hearing loss.