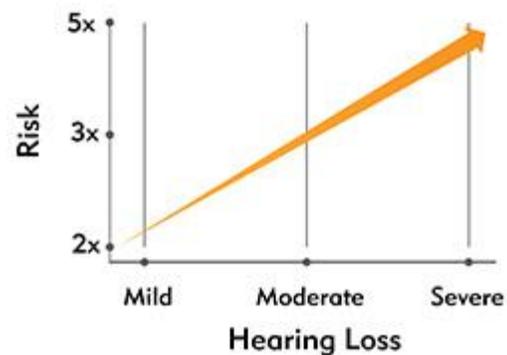


Scientific Dispatch #2 Hearing Aid Use and Dementia Risk

Researchers have known for some time that people with hearing loss are at increased risk for cognitive decline. In fact, hearing loss is the strongest predictor of cognitive decline. Until now, there have been two possible explanations for this. The “common cause” hypothesis says that hearing loss and dementia are two symptoms of the same underlying problem and, as that problem gets worse, both cognition and hearing will be affected. If this is true, then wearing hearing aids (while very helpful in terms of aiding hearing) won’t necessarily help any cognitive decline you may be experiencing. The second is the “cascade” hypothesis, which posits that the loss of hearing contributes to cognitive decline, whether it is because of decreased stimulation to the brain, social isolation, or depression (all of which can contribute to cognitive decline). If *this* hypothesis is true, then using hearing aids may have an effect on the development or worsening of dementia.

Dr. Frank Lin¹ from John’s Hopkins School of Medicine has long studied hearing loss and its association with cognitive decline. His research indicates that hearing loss is the single biggest predictor of cognitive decline, and that the increased risk of dementia increases with the severity of the hearing loss. **A mild loss was associated with a doubling of the risk of dementia.** The risk increases with the amount of hearing loss, with profound hearing loss showing nearly seven times the risk of developing dementia. What has not been known is whether using hearing aids has an effect on these numbers.



Recent data says yes! A group of researchers from the University of Manchester in England² used long-term study data to look at people who had taken cognitive tests every two years for 18 years, and who had (by coincidence) started using hearing aids in the middle of the study. The results of the study give us some big clues about the questions that began with Dr. Lin’s research: can hearing aids help stave off cognitive decline? These researchers found that **the rate of cognitive decline decreased after hearing aid use began.** The use of hearing aids did not stall, stop, or reverse cognitive decline, but the rate of cognitive decline slowed. This is very strong evidence that the “cascade” hypothesis is true.

There are many more questions that need to be asked. Does it matter when the individual gets the hearing aids? Is it best to treat even very mild hearing losses with hearing aids? Does it matter how much the individual actually wears their hearing aids? These questions take years and years of studying and follow-up to answer, and research is on-going. We’ll keep you posted!

¹Lin et al, 2011. Hearing Loss and Incident Dementia. Archives of Neurology, 68(2):214-220.

²Maharani et al, 2018. Longitudinal Relationship Between Hearing Aid Use and Cognitive Function in Older Americans. Journal of the American Geriatric Society, 66:1130-1136.