

Hearing-Health Quick Facts

Diabetes

- a. High blood glucose levels can cause damage to small blood vessels in the inner ear (similar to how diabetes damages vision and kidney function)
- b. Hearing Loss is twice as common in diabetics
- c. Of those over 60 with diabetes, 54% have hearing loss

Heart Disease

- a. “The inner ear is so sensitive to blood flow that it is possible that **abnormalities in the cardiovascular system could be noted [in the ear] earlier than in other less sensitive parts of the body.**” –David R. Friedland, MD, PhD, President and Vice-Chair of Otolaryngology and Communication Sciences at Medical College of Wisconsin
- b. Inadequate blood flow to the inner ear can cause trauma to blood vessels in the inner ear
- c. Hearing loss is 54% more common in those with heart disease

Hypertension

- a. As hearing declines with age, the average change in hearing thresholds per decade is significantly greater in those with high blood pressure as compared to normal hearing subjects (C. Sreenivas, 2011)

Smoking

- a. Adversely affects heart health and consequently can damage hearing
- b. Smokers are 2X more likely to have hearing loss
- c. 46% of those exposed to second-hand smoke have hearing loss

Cognitive Decline

- a. “The risk of developing **Alzheimer’s disease** specifically also increased with hearing loss, such that for every 10 dB of hearing loss, the extra risk increased by **20%**” –Frank Lin, M.D., Ph.D., *Arch Neurol.* 2011 February; 68(2): 214-220
- b. “HL could also lead to dementia by making individuals more **socially isolated, a known risk factor for dementia and other cognitive disorders.**” –Frank Lin, MD, PhD, *Arch Neurol.* 2011 February; 68(2): 214-220

Kidney Disease

- a. Structural and functional similarities between tissues in the inner ear and kidneys
- b. Toxins accumulated with kidney failure can damage nerves – including those in the inner ear
- c. Incidences of 20-87% have been reported

Thyroid Disease

- a. Ear development and function is dependent on thyroid hormones
- b. Approximately half of people with hypothyroidism have hearing loss

Dyslipidemia

- a. Chronic dyslipidemia associated with elevated triglycerides may reduce auditory function (Journal of Otolaryngology-Neurology, 2006)
- b. As hearing declines with age, the average change in hearing thresholds per decade is significantly greater in those with high cholesterol as compared to normal hearing subjects (C. Sreenivas, 2011)