

# How Better Heart Health Can Prevent Hearing Loss



**With well-known links to cardiovascular health problems and type 2 diabetes, obesity presents a significant health threat.**

According to the American Heart Association, 60 to 70 percent of Americans are either overweight or obese. Now mounting evidence from multiple studies has revealed that obesity may also present a risk to hearing health.

If you have patients who are overweight or have cardiovascular disease or type 2 diabetes, they may also be suffering from hearing loss. Our office provides screenings and solutions that can help keep our community healthy and happy. Thank you for working with us to improve the quality of life in our local community!



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The results of a 20-year Harvard Nurses' Health Study published by the American Journal of Medicine in 2013 indicate that obesity, or having a body mass index (BMI) of 30 or higher with extra weight around the midsection, may put individuals at a higher risk for hearing loss. Beginning in 1989, 68,000 women between the ages of 25 and 42 had their BMI measured at the beginning of the study, then assessed biennially on a questionnaire that detailed overall health and daily living habits. Participants submitted waist measurements in 1993 and again in 2005; then, during the final year of the study (2009), they were asked if they had experienced hearing loss. There were a total of 11,286 reports of hearing loss — one out of every six involved in the study.

Obese participants were 17 to 22 percent more likely to report hearing loss than those in the normal BMI range, and severely obese individuals had a 25 percent higher risk. Similarly, participants with a waist measurement larger than 34 inches were 27 percent more likely to report hearing loss than those with waists measuring fewer than 28 inches.

Data also revealed that exercise impacted hearing health: Among participants who engaged in four or more hours of physical activity per week, the risk of hearing loss decreased by 15 percent. These findings suggest that modifiable lifestyle factors such as weight and activity level can reduce the risk of hearing loss while improving cardiovascular health overall. But the connection between hearing and cardiovascular health doesn't end there.

In his article "The Ear Is a Window to the Heart: A Modest Argument for a Closer Integration of Medical Disciplines," Charles E. Bishop, Au.D., asserts, "What we can say with confidence is that states of disease, whether cardiovascular or cardiometabolic in nature — which result from patterns of behavior generally linked to poor nutrition, lack of exercise, stress, and smoking — are clearly related to loss of hearing acuity in older adults." Additional studies support this idea; some suggest that the correlation could play a key role in the early detection of cardiovascular disease.

The results of a 2009 study published by Dr. David R. Friedland and his associates indicate that low-frequency presbycusis

could act as a predictor of cardiovascular disease.

Friedland even suggests that audiogram patterns might serve as a screening test. He explains, "The inner ear is so sensitive to blood flow that it is possible that abnormalities in the cardiovascular system could be noted here earlier than in other less sensitive parts of the body." And while there is no proof that mitigating cardiovascular damage through weight loss and physical activity will reverse hearing loss, physicians across multiple specialty areas (cardiology, endocrinology, and audiology) should feel encouraged to recommend these lifestyle improvements to their patients as a preventive measure against cardiovascular disease, type 2 diabetes, and hearing loss.

The correlation between obesity, cardiovascular health, and hearing — and the suggestion that they each may play a role in the predictability of the other — supports Bishop's belief that collaboration between medical disciplines is beneficial to patients. He says, "There is simply too much evidence that hearing loss is related to cardiovascular disease and other health conditions. It's time we maximized the information we have in order to benefit the individual's overall well-being."

Maintaining a normal BMI through healthy diet and regular exercise is key in preventing cardiovascular disease, type 2 diabetes, and hearing loss. Additional factors that influence weight control and contribute to reduce obesity include limiting screen time, getting a minimum of eight hours of sleep at night, and minimizing stress. Through collaboration across specialty fields, the utilization of hearing measurements as an indicator for cardiovascular disease, and the promotion of healthy lifestyle modifications, physicians can support the health of the whole patient to avoid serious health conditions. ■

*Bishop, C.E. The Ear Is a Window to the Heart: A Modest Argument for a Closer Integration of Medical Disciplines. Otolaryngology. 2012.*

*Friedland, D.R., Cederberg, C., and Tarima, S. Audiometric Pattern as a Predictor of Cardiovascular Status: Development of a Model for Assessment of Risk. The Laryngoscope. 2009; 119: 473-486.*

*Curhan, S.G., Eavey, R., Wang, M., Stampfer, M. J., Curhan, G.C., Body Mass Index, Waist Circumference, Physical Activity, and Risk of Hearing Loss in Women. The American Journal of Medicine. December 2013; volume 126, issue 12, pages 1142.e1-1142.e8.*

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