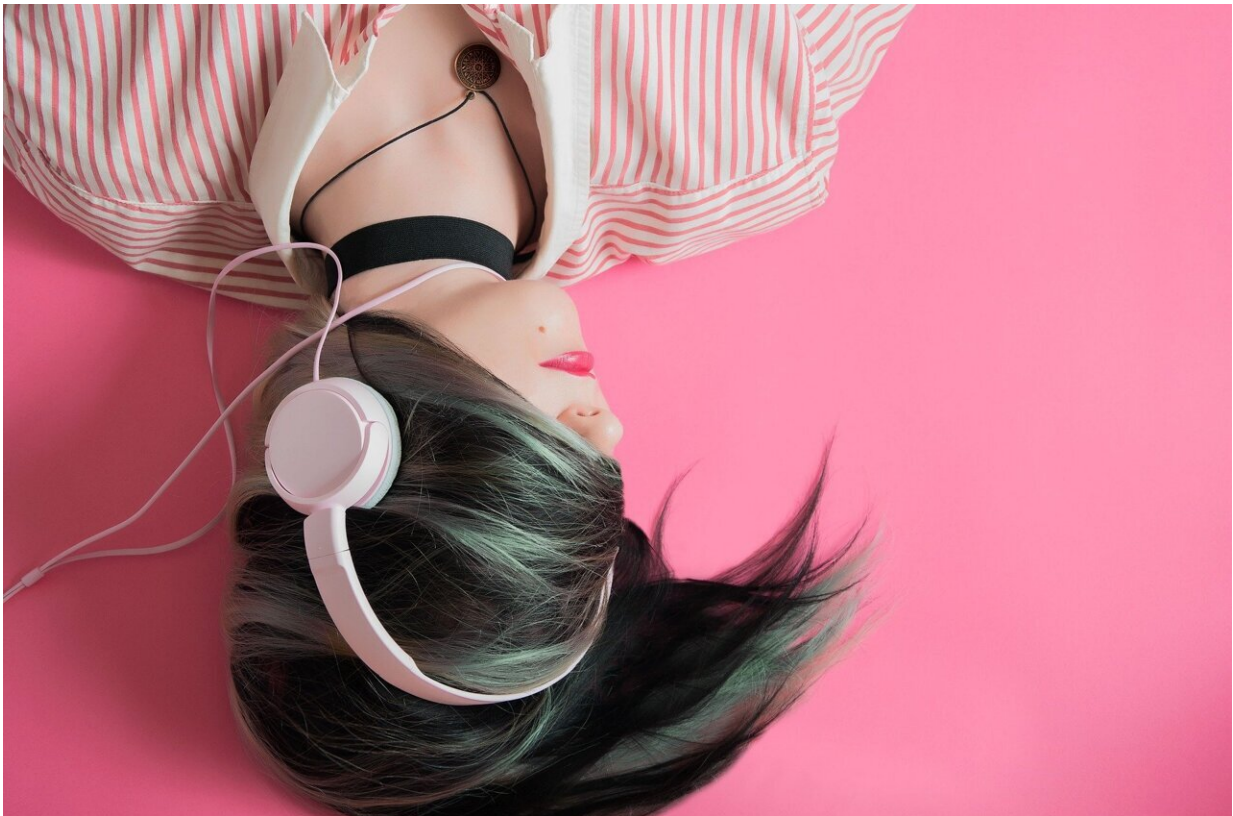


Headphones, earbuds impact younger generations' future audio health

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As more and more people are taking advantage of music on the go, personal audio systems are pumping up the volume to the detriment of the listener's hearing. Children, teenagers, and young adults are listening

to many hours of music daily at volumes exceeding the globally recommended public health limit of 70 decibels of average leisure noise exposure for a day for a year.

During the 180th Meeting of the Acoustical Society of America, held virtually June 8-10, Daniel Fink, from The Quiet Coalition, and audiologist Jan Mayes talked about the current research into personal audio system usage and the need for public health hearing conservation policies. Their session, "Personal audio system use can harm auditory health," took place Thursday, June 10, at 11:35 a.m. Eastern U.S.

"Nonoccupational noise exposure in everyday life comes from a handful of noise sources: personal listening systems, especially for [younger people](#); transit noise, home appliances; power tools; and entertainment (sports events, movies, parties (weddings, bar mitzvahs, birthday parties, etc.), NASCAR races, etc.)," Fink said.

In 2017, the Centers for Disease Control and Prevention reported almost 25% of American adults, age 20-69, have noise-induced [hearing loss](#). Acquired hearing loss is associated with communication difficulties, social isolation, increased risk of falls and accidents, and health complications, including dementia in later life.

Auditory [health](#) risk is highest for people using personal audio systems for more than an hour a day at more than 50% volume over a five-year period. Disputing a recent Wall Street Journal article claiming 85 decibels is safe for children and teens, Fink said 85 decibels is not a safe exposure for anyone.

"People think the National Institute for Occupational Safety and Health 85 dBA recommended exposure level for noise is safe," he said. "But a noise level that won't prevent hearing loss in factory workers or heavy equipment operators is far too high for a young child whose ears have to

last an entire lifetime."

Fink and Mayes will talk about the need for personal audio system noise emission standards and public education on their use "to prevent an imminent noise-induced hear loss epidemic when today's younger generations reach midlife."

"This isn't just a theoretical problem. Most people get too much [noise](#) every day," Fink said, citing studies from Western Michigan University and the National Institute for Occupational Safety and Health, and the University of Michigan School of Public Health and Apple.

More information: Jan L. Mayes et al, Personal audio system use can harm auditory health, *The Journal of the Acoustical Society of America* (2021). [DOI: 10.1121/10.0004735](https://doi.org/10.1121/10.0004735)

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