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**Environmental Noise Pollution in the United States: Developing an Effective Public Health Response**

**(Excerpt) Chronic Noise: A Biopsychosocial Model of Disease**

Chronic environmental noise causes a wide variety of adverse health effects, including sleep disturbance, annoyance, noise-induced hearing loss (NIHL), cardiovascular disease, endocrine effects, and increased incidence of diabetes ([Passchier-Vermeer and Passchier 2000](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/%22%20%5Cl%20%22r44); [Sørensen et al. 2013](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/#r50)). This commentary is not intended to provide a comprehensive review of all noise-related health effects, which is available elsewhere ([Goines and Hagler 2007](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/#r17)). Rather, we focus on several highly prevalent health effects: sleep disruption and heart disease, stress, annoyance, and NIHL ([Figure 1](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/figure/f1/)). It is important to note that the levels of noise exposures associated with these health effects range widely; as a result, the prevention of different health effects involves specification of different exposure limits and metrics.

[](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/figure/f1/%22%20%5Ct%20%22figure)