

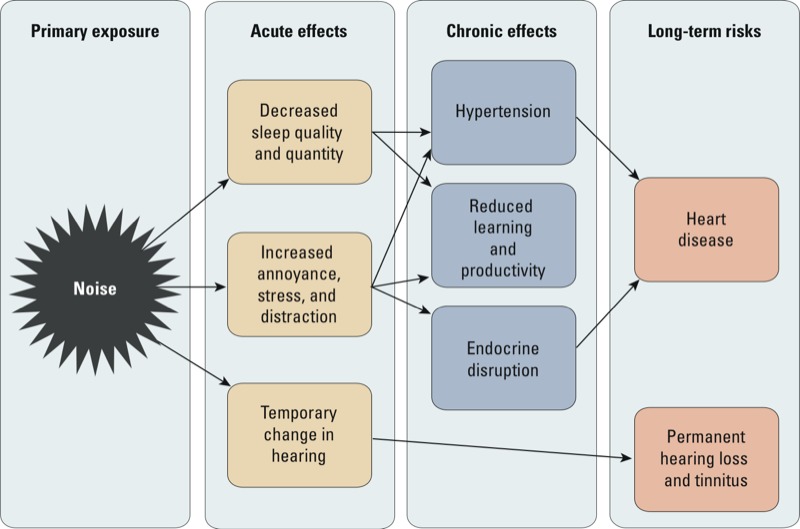
[Environ Health Perspect.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/) 2014 Feb; 122(2): 115–119. Published online 2013 Dec 5. doi: [10.1289/ehp.1307272](https://doi.org/10.1289%2Fehp.1307272)

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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/" \l "r44); [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/)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3915267/figure/f1/" \t "figure)