HEALTHIER WORKPLACES | A HEALTHIER WORLD

Public Policy Priorities

Protecting Workers and the Public from Hazardous Noise Exposure

The Need for Action

Millions of people at and outside of work are exposed to hazardous noise each year, contributing to permanent hearing loss.[1]

The Challenge

It can be difficult to tell when noise levels cross the intensity or duration threshold and become harmful. Even when people do realize that noise levels may be harmful, they may not have the power to change the source of the hazard (e.g., a construction site, manufacturing facility, music, or sporting venue). Furthermore, if someone does wear hearing protectors, they may not wear them properly or may overestimate the protection it provides.

Adding to this challenge, hearing loss is generally slow to manifest, and some expect to lose their hearing with age. This complexity may lessen public, worker, or employer acceptance that noise is truly a significant workplace hazard that should be proactively addressed.

Moreover, exposure to certain chemicals or the use of some medications may have an ototoxicant effect, causing or worsening hearing loss.

Lastly, the use of hearing protection may not always be practical or may create additional hazards; for instance, if a worker is unable to hear a warning alarm or effectively communicate with other workers.

In view of these challenges, a layered approach to noise-related hazard mitigation may be required.

[1] National Institute for Occupational Safety and Health. "Noise & Hearing Loss Prevention". https://www.cdc.gov/niosh/topics/noise/default.html

Recommended Solutions

The following is a list of actions that AIHA members, governments, businesses, nonprofits, and other stakeholders can take to reduce hazardous noise exposures. While it may not be possible to pursue all these actions immediately, progress on any of them represents a step toward protecting more workers and their communities.

- Advocate for Federal and State legislation or regulations that adopt the National Institute for Occupational Safety and Health's (NIOSH) Recommended Exposure Limit (REL) for occupational noise exposure of "85 decibels, A-weighted, as an 8-hour time-weighted average (85 dBA as an 8-hr TWA) using a 3-dB exchange rate."[2]

- Regarding venues and events, support the introduction and enactment of legislation and regulations adopting the World Health Organization's global standard for safe listening venues and events[3], which contains six recommendations for reducing the risk of hearing loss while preserving an enjoyable listening experience for patrons. The six recommendations are:[4]

    1) a maximum average sound level of 100 decibels;

    2) live monitoring and recording of sound levels using calibrated equipment by designated staff;

    3) optimizing venue acoustics and sound systems to ensure enjoyable sound quality and safe listening;

    4) making personal hearing protection available to audiences including instructions on use;

    5) access to quiet zones for people to rest their ears and decrease the risk of hearing damage; and

    6) provision of training and information to staff.

- Encourage businesses to address and control noise hazards in workplaces in a manner that is equitable to all workers, regardless of workers' race, color, religion, sex (including pregnancy and gender identity), national origin, political affiliation, sexual orientation,

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[2] https://www.cdc.gov/niosh/topics/noise/default.html#:~:text=The%20NIOSH%20Recommended%20Exposure%20Limit,this%20level%20are%20considered%20hazardous

[3] https://www.who.int/publications/i/item/9789240043114

[4] https://www.who.int/news/item/02-03-2022-who-releases-new-standard-to-tackle-rising-threat-of-hearing-loss

marital status, disability, genetic information, age, parental status, military service, or socioeconomic status.

- Encourage employers and workers to use dosimeters to evaluate the noise exposures of workers. Exposure data should be analyzed by occupational and environmental health and safety (OEHS) professionals and used to create or improve a hearing conservation plan.

- Advocate for the resumption of congressional funding for the United States Environmental Protection Agency's Office of Noise Abatement and Control, which was established under the Clean Air Act, but has not been funded since 1981.[5]

- Encourage equipment suppliers to label the estimated noise level generated by stationary equipment such as pumps, motors, and production machinery.

- Support NIOSH's "Buy Quiet" initiative. This initiative[6]:

    - Encourages companies to purchase or rent quieter machinery and tools to reduce worker noise exposure. This is accomplished when new businesses start up or when older equipment is replaced.

    - Provides information on equipment noise levels, so companies can buy quieter products that make the workplace safer.

    - Encourages manufacturers to design quieter equipment by creating a demand for quieter products.

- Encourage portable audio manufacturers to limit the maximum volume of their devices (e.g., headphones). This action reflects the importance of Total Worker Health®, which is a holistic approach to workplace health and safety.[7]

- Raise awareness among workers, supervisors, and the public of noise hazards. This includes raising awareness of additional health risks, such as an increased risk of heart disease, which is associated with excessive noise,[8] for employers, employees, and medical professionals. Included in this is recognizing that employees in noisy work environments may also live in community environments that are also loud (e.g., adjacent

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[5] https://www.epa.gov/clean-air-act-overview/clean-air-act-title-iv-noise-pollution#:~:text=Under%20the%20Clean%20Air%20Act,the%20public%20health%20and%20welfare.
[6] https://www.cdc.gov/niosh/topics/buyquiet/default.html
[7] https://www.cdc.gov/niosh/twh/default.html
[8] https://www.corporatewellnessmagazine.com/article/noisy-workplace-raises-risk-heart-disease

to interstates, trains, and airports). Excessive noise can also disturb sleep, decrease cognitive performance, and negatively affect blood pressure and cholesterol levels.

- Support the development and implementation of model curricula in secondary schools on noise and its health effects.

- Advocate for making hearing protection more widely available and sized appropriately for the wearer, including those who wear hearing aids or have other physical limitations that would impact the correct use of hearing protection.

- Encourage supervisors and workers to be trained on the proper use of hearing protection.

High-Hazard Industries

The following is a list of industries, worksites, and worker types where noise-related hazards may be particularly high. Noise-related hazards may also be present in other industries and worksites.

- Construction
- Food production and preparation (including food trucks)
- Hairdressers, nail salon workers and patrons (potential for exposure to ototoxicants)
- Landscaping
- Manufacturing
- Maritime
- Mining
- Oil and gas extraction
- Public health
- Public safety (e.g., law enforcement)
- Public venues (e.g., music festivals, indoor or outdoor stadiums)
- Temporary workers
- Transportation

Take Action Now

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About AIHA

AIHA is the association for scientists and professionals committed to preserving and ensuring occupational and environmental health and safety in the workplace and community. Founded in 1939, we support our members with our expertise, networks, comprehensive education programs, and other products and services that help them maintain the highest professional and competency standards. More than half of AIHA's nearly 8,500 members are Certified Industrial Hygienists and many hold other professional designations. AIHA serves as a resource for those employed across the public and private sectors as well as the communities in which they work. For more information, please visit www.aiha.org.