Noise Stats & Facts

DID YOU KNOW?

Each year, about 22 million external U.S. workers are exposed to hazardous noise levels at work. Over 30 million external U.S. workers are exposed to chemicals, some of which are harmful to the ear (ototoxic) and hazardous to hearing. In addition to damaging workers' quality of life, occupational hearing loss carries a high economic price to society.

The Center for Disease Control (CDC) estimates that 22 million workers are exposed to potentially damaging noise at work each year. Whether you work at a sports venue, on a tarmac, or operate a jackhammer—hearing loss is preventable.

If you need to raise your voice to speak to someone 3 feet away, noise levels might be over 85 decibels. Several sound-measuring instruments are available to measure the noise levels in a workspace. These include sound level meters, noise dosimeters, and octave band analyzers.

Noise may be a problem in your workplace if you:

- Hear ringing or humming in your ears when you leave work.
- Have to shout to be heard by a coworker an arm's length away.
- Experience temporary hearing loss when leaving work.

The National Institute for Occupational Safety and Health (NIOSH) Sound Level Meter App is one tool available to the public to download on mobile iOS devices that measures sound levels in the workplace and provides noise exposure parameters to help reduce occupational noise-induced hearing loss.

Workers in 75.0 percent of civilian jobs were exposed to moderate noise levels at work in 2016. Another 13.3 percent were exposed to loud noise levels and 0.7 percent to very loud levels. Workers in construction and extraction occupations were mostly exposed to loud work (49.6 percent of jobs) or very loud work (7.9 percent). More than 7 in 10 carpenters and operating engineers and other construction equipment operators were exposed to loud work environments in 2016.

In food preparation and serving related occupations, 16.5 percent of jobs were exposed to loud work environments, and 82.1 percent were exposed to moderate noise during a typical work day. Bartending jobs were about evenly split between workers exposed to a loud work environment (44.7 percent) or a moderate noise environment (46.7 percent) in 2016.

- About 25% of all workers have been exposed to hazardous noise, with 14% (22 million) exposed in the last year.
- 34% of noise-exposed workers report not wearing hearing protection.

Hearing Loss and Tinnitus

- Approximately 12% of all workers have hearing difficulty.
- About 8% of all workers have tinnitus.
- About 16% of noise-exposed tested workers have a material hearing impairment.4 Hearing impairment is hearing loss that impacts day-to-day activities.
- 13% of noise-exposed tested workers have hearing impairment in both ears.

Trends in Hearing Loss Among Noise-Exposed Tested Workers (1981-2010)

- The prevalence for all industries combined decreased less than 1% over 30 years (1981-2010).
- The incidence for all industries combined decreased 2% over 25 years (1986-2010).
- The adjusted risk for all industries combined decreased 46% over 25 years (1986-2010).

OCCUPATIONAL HEARING LOSS

- The National Institute for Occupational Safety and Health (NIOSH) recommends that workers are not exposed to noise at a level that amounts to more than 85 decibels (dBA) over 8 continuous hours.
    - NIOSH estimates that 30 million U.S. workers are exposed to noise levels high enough to cause irreversible hearing loss.
- According to the S. Bureau of Labor Statistics, more than 20,000 workplace hearing loss cases occur annually, many resulting in permanent hearing loss.
- An estimated 24% of hearing loss in the United States has been attributed to workplace exposure, according to the Centers for Disease Control and Prevention
    - Research also shows that stronger occupational regulation of noise leads to safer sound levels.

EMPLOYMENT AND ECONOMIC COSTS

- 48% of people who have hearing loss were employed in 2014, but about the same amount (47%) are not in the labor force.
    - Adults with hearing loss are more likely to have lower education, lower income, and be unemployment or underemployment, compared with their typical-hearing peers.
- Individuals with hearing loss also experience greater difficulties in employment transition and career development, compared with those with typical hearing.
- Untreated hearing loss can decrease one’s annual income by as much as $30,000. The yearly cost to society is estimated to be as high as $26 billion in unrealized federal taxes; and an estimated aggregate yearly income loss of $176 billion due to underemployment.
    - For those who did collect an income, individuals with hearing loss made about 25% less; their mean wage was $23,481, compared with $31,272 for typical-hearing peers.
    - Hearing aids were shown to reduce the risk of income loss by 90 to 100% for

those with milder hearing loss, and from 65 to 77% for those with moderate to severe hearing loss.

- Untreated hearing loss shows a higher rate of unemployment:
    - Those with severe hearing loss had an unemployment rate (15.6%) double that of the typical-hearing population (7.8%), and nearly double that of their peers (8.3%) who use hearing aids. (BHI)