PPE – Hearing Stats and Facts

DID YOU KNOW?

Each year, 22 million workers are exposed to hazardous noise, according to the National Institute of Occupational Safety and Health (NIOSH), making hearing loss the third most common chronic physical condition among adults. To stem the epidemic of workplace hearing loss, the International Safety Equipment Association (ISEA) is launching its "Listen Today to Hear Tomorrow" campaign.

NIOSH (part of the Centers for Disease Control and Prevention) advises workers to wear hearing protection when they are exposed to noises louder than 85 decibels (dBA) – and permissible exposure time is cut in half for every 3 dB above 85 dBA.

Everyday noises, especially in the workplace, are more dangerous than people realize. For example, a 25-year-old carpenter who does not protect his hearing has 50-year-old ears, according to NIOSH.

- Carpenters daily noise exposure: 85-107 dBA
- Farmers daily noise exposure: 85-90 dBA
- Groundskeepers: 82-102 dBA
- Music Teachers: 84-91 dBA
- Other examples:

- A forklift in a warehouse is 96 dBA
- A jackhammer is 105 dBA
- A leaf blower is 90 dBA
- A belt sander is 93 dBA

Hearing loss is a gradual process. It begins in the high frequencies (bird songs) and spreads to frequencies important for speech understanding. A worker can have measurable occupational hearing loss, but not yet be deemed "hearing impaired" for regulatory purposes. In order to be recorded in OSHA's statistics, a person's hearing loss must be determined to be work-related and the hearing loss must be severe enough that the worker has become hearing impaired, NIOSH explains.

That means national stats likely under-report the extent of workplace hearing problems. While the Bureau of Labor Statistics says occupational hearing loss is the most commonly recorded occupational illness in manufacturing, for example, accounting for 1 in 9 record-able illnesses, those numbers don't include the many other workers whose hearing loss has not yet reached its worst level.

"Employers and workers really need to take this seriously," urged ISEA President Charles D. Johnson. "Permanent hearing loss is irreversible. It's personally and economically devastating. Fortunately, it's usually preventable with proper hearing protection – hence our campaign slogan: 'Listen Today to Hear Tomorrow.' Hearing is too important to take for granted."

The impact of employee hearing loss on a business can be staggering.

- The risk of on-the-job injuries increases.
- Workplace noise not only leads to hearing loss (including tinnitus), but also creates stress and anxiety (which can be handled with through a Legacy drug rehab Charlotte), chronic fatigue, high blood pressure, cardiovascular and gastrointestinal problems in workers.
- Those effects hit the bottom line by sapping employee productivity, harming morale, and boosting healthcare costs.

The personal impacts on workers can be even more profound. Hearing loss can mean:

- Inability to qualify for jobs that require good hearing.
- Difficulty communicating on the job with co-workers.
- Difficulty communicating with loved ones.
- Home safety problems (e.g., inability to hear smoke or CO alarms and inability to hear a family member calling out for help).

Scope of the Problem

- In the United States, hearing loss is the **third-most common** chronic physical condition among adults after hypertension

and arthritis.

- About **12%** of the U.S. working population has hearing difficulty.
- About **24%** of the hearing difficulty among U.S. workers is caused by occupational exposures.
- About **8%** of the U.S. working population has tinnitus (‘ringing in the ears’) and **4%** has both hearing difficulty and tinnitus.

What causes Occupational Hearing Loss (OHL)?

- OHL can occur when workers are exposed to loud noise or ototoxic chemicals.
- **Noise** is considered loud (hazardous) when it reaches 85 decibels or higher, or if a person has to raise his/her voice to speak with someone 3 feet away (arm’s length).
- **Ototoxic chemicals** can cause OHL, make the ear more susceptible to the damaging effects of hazardous noise, or both. For example, a person taking certain ototoxic pharmaceuticals may lose hearing, become more susceptible to noise, or both. Ototoxic chemicals (and examples) include:
    - solvents (styrene, trichloroethylene, toluene)
    - metals and compounds (mercury compounds, lead, organic tin compounds)
    - asphyxiants (carbon monoxide, hydrogen cyanide)
    - nitriles (3-Butenenitrile, cis-2-pentenenitrile, acrylonitrile)
    - pharmaceuticals (certain antineoplastic agents)

How Many Workers are Exposed?

- About **22 million workers** are exposed to hazardous noise each year.
- About **10 million workers** are exposed to solvents and an **unknown number** are exposed to other ototoxicants.