



Toolbox Talks

Hearing Protection



Exposure to high levels of noise can cause permanent hearing loss. Damage to your hearing can be prevented, but once permanent noise-induced hearing loss occurs, it cannot be cured or reversed. Hearing loss usually occurs gradually, so you may not realize it is even happening until it is too late.

It seems understandable that a one-time exposure to a sudden, powerful noise, like an explosion, can damage your hearing instantly. But it's also important to consider that prolonged exposures (day after day) to loud noise can also lead to a gradual, but permanent, loss of hearing.

➤ Occupational noise is sometimes referred to as a *stealth long-term hazard* because it is a painless, gradual process.

Sound intensity is measured in decibels (dB). When decibels are adjusted (weighted) for how the human ear senses sound, the sound level intensity is measured as dBA.

➤ OSHA recommends that workplace noise levels be kept below 85 dBA as an 8-hour time-weighted average. As the noise level increases, it can damage your hearing more quickly.

There are different ways you can measure or estimate the noise level of any working environment.






- Devices like a **sound level meter**, a **dosimeter**, or a **personal noise indicator** can provide immediate feedback on the noise levels of your surroundings.
 - ➤ The **2–3-foot rule** can be used to quickly evaluate a work environment. Stand about an arm's length away from a co-worker and if you must raise your voice to be heard then you should assume that the sound level is at or above 85 dBA.
 - ➤ There are also **cell phone apps** that have been developed that provide sound level data. The NIOSH Sound Level Meter App is free and provides features of sound level meters and noise dosimeters.

OSHA 1926.52(d)(1) Table D-2 Permissible Noise Exposures	
NOISE EXPOSURE	REQUIRES HEARING PPE IF WORKER IS EXPOSED FOR
90 dBA	8 hours or more
92 dBA	6 hours or more
95 dBA	4 hours or more
97 dBA	3 hours or more
100 dBA	2 hours or more
102 dBA	1 1/2 hours or more
105 dBA	1 hour or more
110 dBA	30 minutes or more
115 dBA	more than 15 minutes



The following are NOT acceptable substitutes for hearing protective devices:
Headphones • Hearing Aids • Plain Cotton • Cigarette Butts

COMMON TYPES OF HEARING PROTECTION DEVICES

TYPE	PROS	CONS
 0002217	<ul style="list-style-type: none">• Fits most ears.• Can provide good protection.• Convenient and disposable.	<ul style="list-style-type: none">• Must be inserted properly to get the best protection.• If the plug doesn't make a good seal, it won't protect your hearing.
 0002218	<ul style="list-style-type: none">• Many have flanges and handles.• Comes in different sizes.• Convenient to carry.• Washable and reusable.	<ul style="list-style-type: none">• Preformed, may not fit everyone.• May require a different size for each ear.• Must keep them clean.
 0002230	<ul style="list-style-type: none">• Molded to user's ear for good fit.• Long-term wear.• Best for difficult-to-fit ears.	<ul style="list-style-type: none">• Must be made by a licensed hearing protection provider.
 0002231	<ul style="list-style-type: none">• Can be worn many ways: under chin, over head, or behind neck.• Can be inserted and removed quickly.	<ul style="list-style-type: none">• Not as comfortable as other devices.• Less protection than other choices.
 0002232	<ul style="list-style-type: none">• Easy to use and wear.• Fits most people.• Easy to keep clean.	<ul style="list-style-type: none">• Can become hot and heavy.• May be difficult to wear with prescription glasses or other PPE.

