

# Preventing Hearing Loss



## How Does Hearing Loss Happen?

Loud noises damage the delicate hair cells in the inner ear. This damage happens gradually when prolonged exposure to loud sounds causes the hair cells to be injured, broken off, or torn away. Because hair cells can't repair themselves, a hearing loss results.

Noise does not have to make your ears hurt to cause hearing damage.



## What's Loud

Whether you are working around the house or pursuing your favorite pastimes, it's wise to protect your hearing if you'll be exposed to loud noises such as:

Snowmobile	100 dBA
Snow blower	105 dBA
Power saw/leaf blower	110 dBA
Rock concert	100 - 120 dBA
Jack hammer/power drill	130 dBA
Stacker races	130 dB
A firecracker	140 + dBA

## YOU ARE YOUR FIRST LINE OF DEFENSE

Noise-induced hearing loss is the most common occupational injury/illness; yet, it is 100 percent preventable. Occupations and situations in which noises can occur above the danger zone (85-90 dBA), pose the biggest threat to people of all ages. Repeated exposure to loud noises can cause permanent, irreversible hearing loss.

An increasing number of 20- and 30-year-old workers are showing hearing losses previously associated with employees twice their age. That means the average 25-year-old carpenter who doesn't protect his hearing has "80-year-old" ears.

## What Did You Say?

Have you ever asked a co-worker or companion to repeat his or herself because you didn't hear them clearly? Some signs of hearing loss are subtle, while others are much more pronounced.

### SUBTLE CLUES TO HEARING LOSS:

- When away from work, do your ears feel plugged?
- In a quieter environment, do your ears have a mild ringing or whooshing noise that lasts for one to two hours?
- Do you have difficulty hearing a companion at arm's length?

### WARNING SIGNS OF HEARING LOSS:

- You hear buzzing in the ears.
- You are not hearing well on the phone.
- You often ask people to repeat themselves.
- You have difficulty hearing someone speak in the presence of background noise.
- You don't hear the turn signal on an automobile you're driving.
- Voices don't sound clear to you.

**FACT:** Hearing loss is gradual, painless and can be permanent. Once it occurs, it's important to protect the hearing you have left. Otherwise, loud noises at work, at home or at play will continue to damage your hearing and make it more difficult to communicate with co-workers, family and friends.

## Hearing Protectors

Hearing protection devices decrease the intensity of sound that reaches the eardrum. They include earplugs and earmuffs. **Here's more:**

**Expanded foam plugs** expand and conform to the shape of your ear canal. **The right fit:** A foam plug should be smooth enough so that half of it easily fits into and plugs the ear canal. Earplugs should be handled with clean hands, damaged and dirty plugs should be thrown away.

**Pre-molded, reusable plugs** are made from silicone, plastic or rubber. Some manufacturers offer them in the one-size-fits-all, while others offer custom sizes. **The right fit:** Make sure you choose the right size for your ears. Try different models and sizes to see which one works the best. You know the plugs are correct when they seal the ear canal without feeling uncomfortable. Replace the plugs as soon as they become hard, torn or out of shape.

**Canal caps/headband plugs** resemble earplugs but are attached to a flexible plastic or metal band. Headbands can be worn over the head, behind the neck or under the chin. **Important:** Store carefully as bending or twisting may compromise protection.

**Earmuffs** block out noise by completely covering the outer ear when fitted correctly. **The right fit:** Earmuffs will not adequately seal the outer ear over long hair or when eyeglasses or safety glasses are worn. Replace the cushions if they become stiff, worn, cut or torn. Do not modify the muffs or protection will be lost.

Many factors need to be considered when selecting the correct hearing protection: personal preference, nature of the work, noise level and physical considerations. Take care to select the right level of protection for you and the task at hand.

**Most important: WEAR IT.**



## Listen Up!

Nine million workers are at risk of hearing loss as a result of skin contact with solvents such as styrene and metals such as lead. These agents enter the bloodstream and may

damage the tissues of the inner ear. Combined exposure to noise and chemicals can cause more hearing loss than exposure to either alone.

## Screenings: What You Should Know

If you are exposed to noise above 85 dBA on the job, you may be a candidate for a hearing test called a **baseline audiogram**. During the test, you'll hear a range of tones at different loudness levels. The audiogram creates a graphic record of your hearing ability, determining the lowest level for each frequency at which you can hear.

**Periodic audiograms** follow, and the baseline audiogram becomes the basis of comparison to determine your hearing ability, if hearing loss has occurred and to what extent.

If your hearing changes, the audiologist will figure out why, as well as conduct additional tests to determine if the change is temporary or permanent.

An audiogram is evaluated by an audiologist, a specialist certified in testing hearing and fitting hearing aids.

The reviewer may ask about your general health and history. That's because other factors may affect hearing, including conditions such as diabetes and high blood pressure, and a history of noise exposure and traumas of the ear, both on and off the job. Tell your reviewer about any ear problems or conditions, such as tinnitus (ringing in the ear), which may indicate over-exposure to noise.

All of the information provides the reviewer with insight into the probable causes of your hearing loss and enhances recommendations for follow-up and treatment to **conserve your hearing**.

**Sometimes medical referrals are necessary** to determine the cause of hearing loss, and medical treatment can be an important next step. Medical intervention might be crucial to your health.

**Remember:** Hearing specialists recommend you have your hearing checked every two years regardless of the conditions in which you work.