



# Hearing Protection

## Use Your Ears to Hear

A Hearing Conservation Program (HCP) is one of the most important components of a safety program. Training employees to use appropriate prevention measures to prevent hearing loss depends on:

- **KNOWLEDGE:** Understanding how noise can be harmful and how hearing protection and noise controls can reduce the risks
- **ATTITUDES:** The belief that hearing is valuable and the personal desire to protect it
- **BEHAVIORS:** Learning how to protect yourself in noise and consistently practicing those skills



Employee “buy-in” is important to a hearing conservation program.

### THE EFFECTS OF NOISE ON HEARING

The hair and nerve cells in the cochlea that send sound signals to the brain can become worn and tear from aging and exposure to loud noise. The hair or nerve cells that are damaged or missing cause the electrical signals to the brain

to be inefficient, causing a hearing loss. Higher pitches may become muffled to the individual.

Early signs of hearing loss may include difficulty hearing other people clearly or misunderstanding what they say, especially in noisy places. Another sign is asking people to repeat themselves or listening to music or watching TV with the volume higher than other people need.

To find out how impaired your hearing is, your doctor may order a formal hearing test also known as an audiogram. It can show the degree of your hearing loss by looking at the range of decibels (a measure of loudness) you can hear.

- Normal hearing is in the range of 0 to 20 decibels. People with normal hearing are able to make out sounds as faint as human breathing, which measures about 10 decibels.
- Mild hearing loss ranges from 21 to 40 decibels.
- Moderate hearing loss ranges from 41 to 55 decibels.
- Moderately severe hearing loss ranges from 56 to 70 decibels.
- Severe hearing loss is in the range of 71 to 90 decibels.
- Profound hearing loss is greater than 90 decibels. People with severe to profound hearing loss will have trouble hearing speech,

although they can make out loud sounds like a truck that backfires or an airplane taking off.

### CHOOSING APPROPRIATE HEARING PROTECTION

Wear time (the time an employee will wear hearing protection) is often affected by the overall comfort, the ease of use, and if the protection interferes with the work or an employee’s ability to still hear. Even the best hearing protectors aren’t as likely to be used if they aren’t convenient and compatible with the work being done. Workers not only need to be protected from hazardous loud sounds, but they also often need to be able to hear and communicate on the job. Consider the comfort of the hearing protection such as the: pressure, size, softness, and weight of ear plugs, ear muffs, or banded earplugs, etc.

Consider the job and the comfort before choosing hearing protection. Evaluate factors such as hygiene. When hands are dirty or employees wear gloves, reusable & push-to-fit earplugs, with their convenient stems or handles, help make it possible to keep the tips of the earplugs clean during use because they do not need to be rolled down before using. Workers who have a need to put ear protection on and off many times a day might prefer banded hearing protection or push to fit styles.

Some situations may require workers to repeatedly remove or reuse hearing protection. In this case helmet-mounted earmuffs, which allows workers to keep their earplugs



conveniently connected, can also make it easier to comply with hearing protection policies

When hearing protection is only needed occasionally, offer earplugs with a compact storage case to help keep the earplugs clean in between uses or refillable earplug dispensers are also an option to make sure hearing protection is available whenever and wherever they are needed.

### AUDIOMETRIC TESTING

Audiometric testing monitors an employee's hearing over time. Audiometric testing is essentially the term for a hearing test. In the workplace where people are exposed to significant noise levels, chemical substances (ototoxic agents) and Hand Arm Vibration (HAV), there is the likelihood of hearing loss. The four main reasons why audiometric testing is conducted include:

- Detection and documentation of existing hearing loss;
- Identifying early identification of Noise Induced Hearing Loss (NIHL)
- To refer individuals with significant hearing loss to medical practitioners
- Facilitate communication or warning systems for those individuals that may be affected by hearing loss.

Baseline audiometry is the audiometric testing that is performed for companies prior to a person being exposed to excessive noise. This forms a basis of future audiometric testing.

Monitoring audiometric testing is performed to assess, the effectiveness of controls whilst being exposed to noise which can be assessed as either temporary or permanent hearing loss.

### INSTRUCTIONS FOR USING HEARING PROTECTION

#### Disposable Foam Earplugs/ Reusable Earplugs

1. Roll the earplug up into a small, thin "snake" with your fingers. You can use one or both hands.



2. Pull the top of your ear up and back with your opposite hand to straighten out your ear canal. The rolled-up earplug should slide right in.
3. Hold the earplug in with your finger until it expands to fill the ear canal. Your voice will sound muffled when the plug has made a good seal.
4. Check the fit when you're all done. Most of the foam body of the earplug should be within the ear canal.

#### Push to Fit

1. Insert rounded earplug tip into ear canal while pulling ear outward and upward with opposite hand.
2. Hold pressure on stem for a few seconds while inserting. If needed, push stem from a different direction to make insertion easier.
3. The entire earplug tip should be inside the ear canal.



#### Custom Molded Earplugs

1. Start by finding the left and right earplugs.
2. Holding the plug with your thumb and forefinger, put the plug in the ear and twist it backwards (away from your nose). A gentle pull back on the ear can make it easier.



3. Some ears will need a lubricant to get the earplugs in the first few times. (Check with your manufacturer.)
4. Once in your ears, they should feel snug, but without any pinches, pokes, or pain - even after 30+ minutes of wear time.

#### Over the earmuffs

1. Place the hard hat on the head and adjust the earmuffs by sliding the cups up and down. Ensure that the earmuff is firmly attached by lifting the arm up and down.
2. Place earcups over each ear. Adjust the length of the headband strap between the earcups so the earmuff fits well on top of the head.



#### Banded Hearing Protectors

1. Position the band under your chin.
2. Use your hands to press the ear pods well into the ear canal using an inward motion.
3. Protection levels are improved by pulling your ear up and back when fitting.



## SAFETY TRAINING SIGN-IN

Company Name: \_\_\_\_\_ Date: \_\_\_\_\_

Subject: Hearing Protection

The following employees participated in this training.

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