



*Combating Common Objections  
to Hearing Protection Wear*

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## Introduction

Keeping workers properly protected from hazardous noise and motivated to wear their hearing protectors is a challenge for any safety manager. With proper training and ongoing encouragement, most workers do wear their earplugs or earmuffs on the job. However, there are always a few workers who feel compelled to raise objections instead of just donning their hearing protectors and getting on with the job.

Here are a few common objections workers raise to wearing hearing protection devices (HPDs), and some suggestions on how to combat them and perhaps even change those attitudes.

### “I can’t communicate with my co-workers.”

The ultimate irony of hearing protection is that, in order to prevent noise-induced hearing loss (NIHL), we must make ourselves temporarily hearing impaired. Yet in many jobs, the ability to communicate must be balanced with adequate protection from the hazardous noise. If we just automatically select the highest attenuation for hearing protectors, we may be making it more difficult to communicate or hear warning alarms. People who complain that their hearing protectors isolate them from co-workers, announcements and signals have a tendency to remove their HPDs in order to communicate, thus increasing their exposure to hazardous noise.

Removing protectors for even a few minutes can reduce the overall effectiveness of the HPD’s Noise Reduction Rating. In Table 1, we identify the relationship between the published attenuation and the reduced optimal effectiveness of a Hearing Protector when removed for 5, 10, 15 and 30 minutes throughout a workshift. In most instances, this reduces the protector’s overall effectiveness up to 40% and may not be ideal for some noise environments.

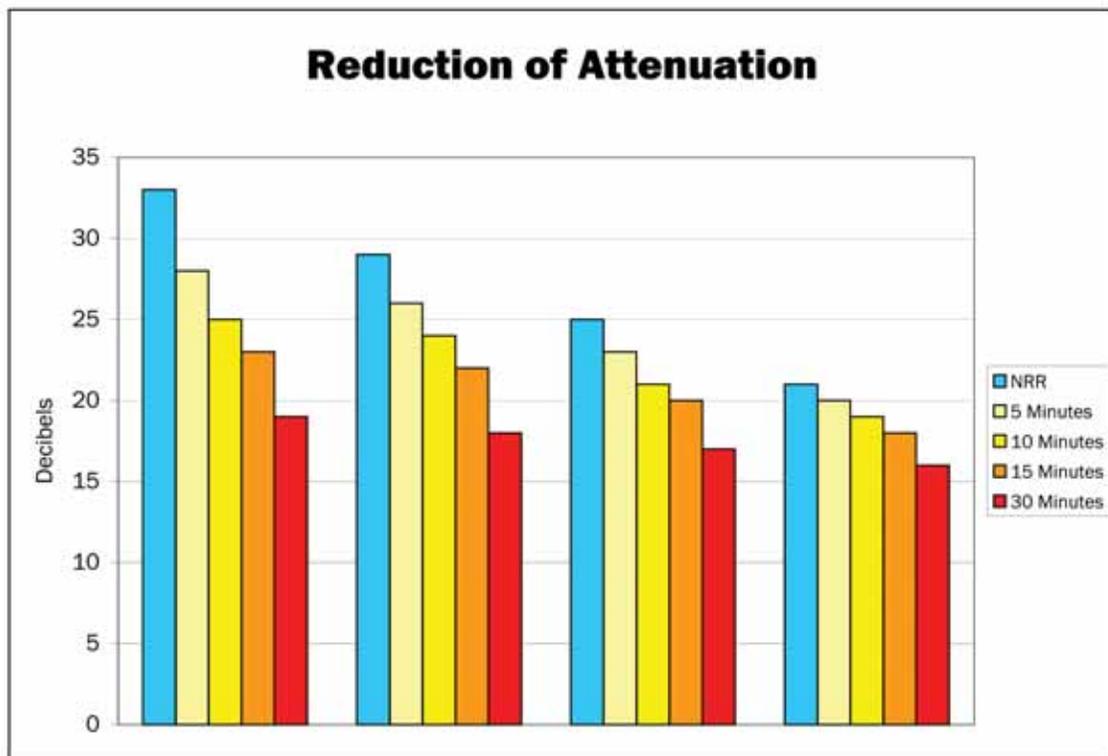
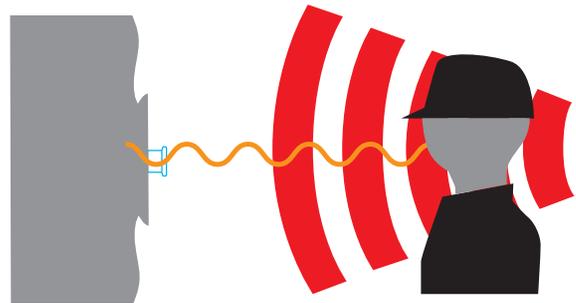


Table 1. Reduction of Attenuation: Effective protection of HPDs when removed over time during a workshift.

The ideal hearing protector brings hazardous noise levels to a manageable range of 70-85 dB which allows users to still hear the sounds he/she needs to hear. Offering hearing protectors with a range of NRRs allows people to select the hearing protector most appropriate for their noise exposure.

Hearing protectors that provide uniform attenuation may also be a practical remedy to this situation. Uniform attenuation protectors block out low and medium frequencies, while higher frequencies — which include speech, signals and alarms — can be heard more naturally and with less distortion. People who wear uniform attenuation protectors often comment that they can hear their co-workers “more clearly,” and tend to remove their HPDs less frequently.



*Uniform attenuation enhances a wearer's ability to hear others as it blocks out low and medium frequencies, while higher frequencies such as voice, signals and alarms can be heard more naturally – and with less distortion. Products such as Howard Leight's Matrix™ single-use earplugs, and Clarity® multiple-use earplugs and earmuffs feature uniform attenuation.*

## “I don't need them! I'm used to the noise.”

The ear cannot “get accustomed” to noise. Noise-induced hearing loss is progressive and permanent, and is caused by prolonged exposure to high volumes of noise at any frequency. In general, it is marked by a decline in hearing high frequencies and difficulty recognizing high-pitched sounds, including conversation, signals and alarms. If a worker has lost some hearing, wearing HPDs is more important than ever to prevent further loss. The objection that he is used to the noise may be a sign that the worker has already experienced some hearing loss and may need an audiometric evaluation. It's also a good idea to keep a basic sound-level meter on hand: if you show a worker the noise level on the spot, the raw data will help the message sink in.

## “Hearing protectors are uncomfortable.”

Since earplugs are one of the only pieces of personal protective equipment worn inside the body, it should come as no surprise that discomfort is the primary factor in *not* wearing HPDs. Comfort complaints range from tightness or too much pressure in the ear canal, to a feeling of stiffness, and difficulty inserting an earplug. Everyone's ear canals are different in size and shape — even from left to right — so what's comfortable for Christopher may not work for Christine.

To improve personal comfort, people often compromise protection by not fully inserting earplugs, “modifying” their shape, or lubricating them with foreign substances. However, partial or improper insertion can reduce earplug attenuation to near zero. In addition, audiologists often see more hearing loss in workers exposed to 85-95 dB who “cheat” on the fit and wear time of their earplugs than in those exposed to more dangerous 95-105 dB levels but who recognize the danger and wear their earplugs more consistently.

*Howard Leight offers free Earplug and Earmuff Instruction Posters through Sperian Customer Care (800/430-5490). PDFs may also be downloaded from [www.howardleight.com/bestpractices/plan](http://www.howardleight.com/bestpractices/plan).*



To ensure the best, most comfortable fit, offer workers a variety of HPDs that include different sizes, shapes, materials, and attenuation levels to accommodate both personal preferences and specific applications. In addition, including workers in the selection process can boost worker acceptance and day-to-day compliance. Also, during annual training, have workers demonstrate their insertion technique; studies show that one-on-one training improves fit and overall HPD acceptance. Hanging posters on earplug and earmuff fitting should also help to ensure awareness and proper use of hearing protectors.

## “I don’t want to get the dirt from my hands in my ear.”

The likelihood of an earplug directly causing an ear infection is minimal. Ear infections are generally caused by a virus in the middle or inner ear, or an abrasion or cut in the ear canal that is aggravated by earplug insertion. Ears have a natural defense against foreign objects in the ear canal — cerumen, *aka* earwax. Cerumen, along with the hair in your outer ear, traps dirt and other contaminants, and also hampers bacteria from growing in the outer ear.

For workers whose hands get dirty during the course of a day, multiple-use earplugs with stems, no-roll foam or banded earplugs, and/or earmuffs can prevent the transfer of dirt and grease from fingers to earplugs.



*Employees who work in dirty environments may opt for multiple-use earplugs with stems to prevent dirt from entering the ear canal.*

## “I forget to put them in.”

Of all common workplace safety risks, noise is perhaps the easiest to overlook. Noise-induced hearing loss is invisible — and thus, not always top-of-mind when we don our hard hats, safety eyewear, respirators and protective gloves to start our shift. Yet earplugs are also one of the easiest pieces of safety equipment to store in your pocket, tool case, apron, wear around your neck, or even tie to your hard hat for easy access!

Posting fitting instruction posters, noise thermometers and area noise level signs, and mounting clearly visible earplug dispensers will help remind workers to protect themselves from hazardous noise. In addition to setting a good example by wearing hearing protection themselves, safety managers should also carry earplugs to hand out to workers who are not properly protected, and publicly praise workers who are wearing them properly. Also, keeping purchasing in the loop can improve your hearing conservation program. An empty earplug dispenser can help no one and signals a less than effective program.



*Earplug dispensers, such as the Leight® Source 400 (pictured), are an economical and convenient source of earplugs for all employees. Place dispensers by the shop door or in the lunchroom, and employees can access a new pair of earplugs as they enter the workspace.*

## “I can’t wear my earmuffs with my hard hat/safety eyewear/face shield.”

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Conflicts can arise when two pieces of personal protective equipment (PPE) compete for the same headspace, or in the case of earmuffs, *headband* space. The combination of earmuffs with other PPE can result in problems such as insufficient clearance for headband (with a hard hat), gaps around the earmuff seal (with safety glasses), insufficient clearance for earcup (with faceshields and welding helmets), and contact transmission of vibrations (with respiratory hoods).

In most cases, the earmuff wearer can simply switch to earplugs to avoid conflicts with other PPE. Earplugs offer the same level of protection, and are compatible with virtually all other PPE. But in some cases, use of an earmuff is still preferred over an earplug. Earmuffs have the advantage of being easier to don, more comfortable for some users, and more hygienic in some dirty environments. Some wearers cannot switch to earplugs because their specialty earmuffs are wired for communication or radio transmission. Earmuffs are also the preferred hearing protector for employees suffering from acute or chronic ear infections or irritations.

Manufacturers have responded to this need by developing a wide range of earmuffs compatible with other PPE, as shown in the table below. Cap-mounted earmuffs are available for use with a variety of hard hats, allowing users to rotate the earmuffs back when not in use. Neckband models are ideal for use with faceshields and welding helmets, where the band works unobtrusively behind the neck.

## “I can always get a hearing aid.”

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A common misconception about hearing aids is that they restore hearing back to “normal.” While hearing aids can help people hear *better*, they are no substitute for normal hearing. Prescribed for people with mild to severe hearing loss, hearing aids amplify ambient sound, but they do not restore natural hearing, or even eliminate some background noises. Also, OSHA does not exempt workers with existing NIHL from wearing hearing protection in noisy areas; they, too, must don the appropriate HPDs when exposed to hazardous noise.

But this facetious objection to wearing HPDs is usually voiced by a macho younger worker who fails to understand the risks or appreciate his vulnerability. It’s a clear signal that any training invested in this guy has so far been for naught and that another approach needs to be taken. The “voice of experience” from an older worker may help to influence their behavior. Or personalize the value of hearing — ask “What’s your favorite sound?” to start them thinking about the importance of healthy hearing.

Addressing worker objections to HPD wear on-the-spot may take time, however down the line it will help save your worker’s hearing health — and possibly save your company thousands of dollars in compensation.

## Compatibility of Earmuffs Used with Other PPE

PPE	Incompatibility	Solutions
<p><b>Safety Eyewear</b></p> 	<p>Eyewear frames cause gaps between the earmuff cushion and the head, thus reducing attenuation. Attenuation of an earmuff is reduced by about 2 dB when worn with a medium-width frame (3 mm), and is reduced by 5 dB or more when worn with a thick temple piece (6 mm), common in adjustable frames.<sup>1</sup></p>	<p>Choose eyewear with thin temple frames (2 mm or less in width). Thin frames cause no significant change in earmuff attenuation. Metal or non-adjustable frames are often thinner than other models.</p>
<p><b>Hard Hats</b></p> 	<p>Hard hats interfere with over-the-head earmuff headband. Full-brim hard hats do not accommodate cap-mounted earmuffs.</p>	<p>Use cap-mounted earmuffs where possible. For full-brim hard hats, choose multi-position earmuffs allowing under-chin or behind-head placement of headband, or neckband earmuffs.</p>
<p><b>Faceshields</b></p> 	<p>Faceshield may not allow clearance for earcup or headband.</p>	<p>Use neckband earmuffs or earplugs that fit beneath the faceshield without interference.</p>
<p><b>Respiratory Hood (SCBA, PAPR)</b></p> 	<p>As the hood makes contact with earmuff shell, it will transmit rubbing noises into earcup.</p>	<p>Choose a low-profile earmuff that allows more clearance between earcup and hood, or earplugs.</p>

<sup>1</sup>Attenuation of earmuffs with safety eyewear was measured at the NVLAP-accredited Howard Leight Acoustical Laboratory, San Diego, California.

Sperian Hearing Protection, LLC, recommends all users of its products undergo thorough training and that all warnings and instructions provided with the products be thoroughly read and understood prior to use. It is necessary to assess hazards in the work environment and to match the appropriate personal protective equipment to particular hazards that may exist. At a minimum, a complete and thorough hazard assessment must be conducted to properly identify the appropriate personal protective equipment to be used in a particular work environment.

**▲ FAILURE TO READ AND FOLLOW ALL PRODUCT WARNINGS AND INSTRUCTIONS AND TO PROPERLY PERFORM A HAZARD ASSESSMENT MAY RESULT IN SERIOUS PERSONAL INJURY, ILLNESS OR DEATH.**

For further information on VeriPRO or other Hearing Conservation topics, contact Howard Leight VeriPRO Technical Support at: 877/VERIPRO.

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