

**Q: Don't we lose our hearing as we age?**

**A:** It's true that most people's hearing test gets worse as they get older. But for the average person, aging does not cause impaired hearing before at least the age of 60. People who are not exposed to noise and are otherwise healthy, keep their hearing for many years. People who are exposed to noise and do not protect their hearing begin to lose their hearing at an early age. For example, by age 25 the average carpenter has "50-year old" ears! That is, by age 25, the average carpenter has the same hearing as someone who is 50 years old and has worked in a quiet job.

**Q: Can you poke out your eardrums with earplugs?**

**A:** That is unlikely for two reasons. First, the average ear canal is about 1 1/4 inches long. The typical ear plug is between 1/2 to 3/4 of an inch long. So even if you inserted the entire earplug, it would still not touch the eardrum. Second, the path from the opening of the ear canal to the eardrum is not straight. In fact, it is quite irregular. This prevents you from poking objects into the eardrum.

**Q: We work in a dusty, dirty place. Should I worry that our ears will get infected by using earplugs?**

**A:** Using earplugs will not cause an infection. But use common sense. Have clean hands when using earplugs that need to be rolled or formed with your fingers in order for you to insert them. If this is inconvenient, there are plenty of earplugs that are pre-molded or that have stems so that you can insert them without having to touch the part that goes into the ear canal.

**Q: Can you hear warning sounds, such as backup beeps, when wearing hearing protectors?**

**A:** The fact is that there are fatal injuries because people do not hear warning sounds. However, this is usually because the background noise was too high or because the person had severe hearing loss, not because someone was wearing hearing protectors. Using hearing protectors will bring both the noise and the warning sound down equally. So if the warning sound is audible without the hearing protector, it will usually be audible when wearing the hearing protector. For the unusual situations where this is not the case, the solution may be as simple as using a different hearing protector. Also, many warning systems can be adjusted or changed so warning signals are easier to detect.

**Q: Won't hearing protectors interfere with our ability to hear important sounds our machinery and equipment make?**

**A:** Hearing protectors will lower the noise level of your equipment; it won't eliminate it. However, some hearing protectors will reduce certain frequencies more than others; so wearing them can make noises sound different. In cases where it's important that the sound just be quieter without any other changes, there are hearing protectors that can provide flat attenuation.

There are also noise-activated hearing protectors that allow normal sounds to pass through the ear and only "turn-on" when the noise reaches hazardous levels. There are even protectors that professional concert musicians use that can lower the sound level while retaining sound fidelity.

**Q: Will we be able to hear each other talk when wearing hearing protectors?**

**A:** Some people find they can wear hearing protectors and still understand speech. Others will have trouble hearing speech while wearing hearing protectors. Being able to hear what other people say depends on many things: distance from the speaker, ability to see the speaker's face, general familiarity with the topic, level of background noise, and whether or not one has an existing hearing impairment. In some cases, wearing hearing protectors can make it easier to understand speech.

In other instances, people may be using hearing protectors to keep out too much sound. You may need a protector that reduces the sound enough to be safe without reducing the sound too much to hear speech at a comfortably loud level. For those people who work in noise and must communicate, it may also be necessary to use communication headsets. Allow your employees to try different protectors. Some will work better than others at helping them to hear speech, and different protectors may work better for different people.

**Q: How long does it take to get used to hearing protectors?**

**A:** Think about getting a new pair of shoes. Some shoes take no time to get used to. Others - even though they are the right size - can take a while to get used to. Hearing protectors are no different from other safety equipment in terms of getting used to them. But if hearing protectors are the wrong size, or are worn out, they will not be comfortable. Also, workers may need more than one kind of protector at their job. For example, no one would wear golf shoes to go bowling. If hearing protectors are not suitable for the work being done, they probably won't feel comfortable.

**Q: How long can someone be in a loud noise before it's hazardous?**

**A:** The degree of hearing hazard is related to both the level of the noise as well as to the duration of the exposure. But this question is like asking how long can people look at the sun without damaging their eyes. The safest thing to do is to ensure workers always protect their ears by wearing hearing protectors anytime they are around loud noise.

**Q: How can I tell if a noise situation is too loud?**

**A:** There are two rules: First, if you have to raise your voice to talk to someone who is an arm's length away, then the noise is likely to be hazardous. Second, if your ears are ringing or sounds seem dull or flat after leaving a noisy place, then you probably were exposed to hazardous noise.

**Q: How often should your hearing be tested?**

**A:** Anyone regularly exposed to hazardous noise should have an annual hearing test. Also, anyone who notices a change in his/her hearing (or who develops tinnitus) should have his or her ears checked. People who have healthy ears and who are not exposed to hazardous noise should get a hearing test every three years.

**Q: Since I already have hearing loss and wear a hearing aid, hearing prevention programs don't apply to me, right?**

**A:** If you have hearing loss, it's important to protect the hearing that you have left. Loud noises can continue to damage your hearing making it even more difficult to communicate at work and with your family and friends.

**Q: Where can I get a hearing test?**

**A:** You can find information on where to get a hearing test by visiting the following Web sites:

- **The National Hearing Conservation Association (NHCA)** at <http://www.hearingconservation.org>.  
External Link: <http://www.hearingconservation.org>
- **The American-Speech-Language-Hearing Association (ASHA)** at <http://www.asha.org>.  
External link: <http://www.asha.org>  
The site features a [certified clinics in a geographical area of interest](#). You can also obtain a list of individually certified audiologists in your area by phoning ASHA at **1-800-638-TALK (1-800-638-8255)**.
- **The American Academy of Audiology (AAA)**  
External Link: <http://www.audiology.org>.  
The site features a Consumer Resources page which allows you to [Locate an Audiologist](#). This allows you to easily locate specific individuals.

**Q: Where can I get information about ringing in my ears?**

**A:** You can find information on where to get information about ringing in your ears by visiting the following Web sites:

- The **Tinnitus FAQ** (or t-faq) at <http://www.bixby.org/faq/tinnitus.html>.  
External Link: <http://www.bixby.org/faq/tinnitus.html>
- The **American Tinnitus Association (ATA)** at <http://www.ata.org>.  
External Link: <http://www.ata.org>

**Q: Who can help with noise in my community?**

**A:** You can find information on who can help you with noise in your community by visiting the following Web site:

- The [Noise Pollution Clearinghouse](#).

## **At-Work Solutions for Noise**

### **Hearing Conservation Program Evaluation Checklist**

---

#### **Training and Education**

Failures or deficiencies in hearing conservation programs (hearing loss prevention programs) can often be traced to inadequacies in the training and education of noise-exposed employees and those who conduct elements of the program.

1. Has training been conducted at least once a year?
2. Was the training provided by a qualified instructor?
3. Was the success of each training program evaluated?
4. Is the content revised periodically?
5. Are managers and supervisors directly involved?
6. Are posters, regulations, handouts, and employee newsletters used as supplements?
7. Are personal counseling sessions conducted for employees having problems with hearing protection devices or showing hearing threshold shifts?

[Back to Top](#)

#### **Supervisor Involvement**

Data indicate that employees who refuse to wear hearing protectors or who fail to show up for hearing tests frequently work for supervisors who are not totally committed to the hearing loss prevention programs.

1. Have supervisors been provided with the knowledge required to supervise the use and care of hearing protectors by subordinates?
2. Do supervisors wear hearing protectors in appropriate areas?
3. Have supervisors been counseled when employees resist wearing protectors or fail to show up for hearing tests?
4. Are disciplinary actions enforced when employees repeatedly refuse to wear hearing protectors?

[Back to Top](#)

## **Noise Measurement**

For noise measurements to be useful, they need to be related to noise exposure risks or the prioritization of noise control efforts, rather than merely filed away. In addition, the results need to be communicated to the appropriate personnel, especially when follow-up actions are required.

1. Were the essential/critical noise studies performed?
2. Was the purpose of each noise study clearly stated? Have noise-exposed employees been notified of their exposures and appraised of auditory risks?
3. Are the results routinely transmitted to supervisors and other key individuals?
4. Are results entered into health/medical records of noise exposed employees?
5. Are results entered into shop folders?
6. If noise maps exist, are they used by the proper staff?
7. Are noise measurement results considered when contemplating procurement of new equipment? Modifying the facility? Relocating employees?
8. Have there been changes in areas, equipment, or processes that have altered noise exposure? Have follow-up noise measurements been conducted?
9. Are appropriate steps taken to include (or exclude) employees in the hearing loss prevention programs whose exposures have changed significantly?

[Back to Top](#)

## **Engineering and Administrative Controls**

Controlling noise by engineering and administrative methods is often the most effective means of reducing or eliminating the hazard. In some cases engineering controls will remove requirements for other components of the program, such as audiometric testing and the use of hearing protectors.

1. Have noise control needs been prioritized?
2. Has the cost-effectiveness of various options been addressed?
3. Are employees and supervisors appraised of plans for noise control measures? Are they consulted on various approaches?
4. Will in-house resources or outside consultants perform the work?
5. Have employees and supervisors been counseled on the operation and maintenance of noise control devices?
6. Are noise control projects monitored to ensure timely completion?
7. Has the full potential for administrative controls been evaluated? Are noisy processes conducted during shifts with fewer employees? Do employees have sound-treated lunch or break areas?

[Back to Top](#)

## **Monitoring Audiometry and Record Keeping**

The skills of audiometric technicians, the status of the audiometer, and the quality of audiometric test records are crucial to hearing loss prevention program success. Useful information may be ascertained from the audiometric records as well as from those who actually administer the tests.

1. Has the audiometric technician been adequately trained, certified, and recertified as necessary?
2. Do on-the-job observations of the technicians indicate that they perform a thorough and valid audiometric test, instruct and consult the employee effectively, and keep appropriate records?
3. Are records complete?
4. Are follow-up actions documented?
5. Are hearing threshold levels reasonably consistent from test to test? If not, are the reasons for inconsistencies investigated promptly?
6. Are the annual test results compared to baseline to identify the presence of an OSHA standard threshold shift?
7. Is the annual incidence of standard threshold shift greater than a few percent? If so, are problem areas pinpointed and remedial steps taken?

8. Are audiometric trends (deteriorations) being identified, both in individuals and in groups of employees? (NIOSH recommends no more than 5% of workers showing 15 dB Significant Threshold Shift, same ear, same frequency.)
9. Do records show that appropriate audiometer calibration procedures have been followed?
10. Is there documentation showing that the background sound levels in the audiometer room were low enough to permit valid testing?
11. Are the results of audiometric tests being communicated to supervisors and managers as well as to employees?
12. Has corrective action been taken if the rate of no-shows for audiometric test appointments is more than about 5%?
13. Are employees incurring STS notified in writing within at least 21 days? (NIOSH recommends immediate notification if retest shows 15 dB Significant Threshold Shift, same ear, same frequency.)

[Back to Top](#)

## Referrals

Referrals to outside sources for consultation or treatment are sometimes in order, but they can be an expensive element of the hearing loss prevention program, and should not be undertaken unnecessarily.

1. Are referral procedures clearly specified?
2. Have letters of agreement between the company and consulting physicians or audiologists been executed?
3. Have mechanisms been established to ensure that employees needing evaluation or treatment actually receive the service (i.e., transportation, scheduling, reminders)?
4. Are records properly transmitted to the physician or audiologist, and back to the company?
5. If medical treatment is recommended, does the employee understand the condition requiring treatment, the recommendation, and methods of obtaining such treatment?
6. Are employees being referred unnecessarily?

[Back to Top](#)

## Hearing Protection Devices

When noise control measures are infeasible, or until such time as they are installed, hearing protection devices are the only way to prevent hazardous levels of noise from damaging the inner ear. Making sure that these devices are worn effectively requires continuous attention on the part of supervisors and program implementors as well as noise-exposed employees.

1. Have hearing protectors been made available to all employees whose daily average noise exposures are 85 dBA or above? (NIOSH recommends requiring HPD use if noises equal or exceed 85 dBA regardless of exposure time.)
2. Are employees given the opportunity to select from a variety of appropriate protectors?
3. Are employees fitted carefully with special attention to comfort?
4. Are employees thoroughly trained, not only initially but at least once a year?
5. Are the protectors checked regularly for wear or defects, and replaced immediately if necessary?
6. If employees use disposable hearing protectors, are replacements readily available?
7. Do employees understand the appropriate hygiene requirements?
8. Have any employees developed ear infections or irritations associated with the use of hearing protectors? Are there any employees who are unable to wear these devices because of medical conditions? Have these conditions been treated promptly and successfully?
9. Have alternative types of hearing protectors been considered when problems with current devices are experienced?
10. Do employees who incur noise-induced hearing loss receive intensive counseling?
11. Are those who fit and supervise the wearing of hearing protectors competent to deal with the many problems that can occur?
12. Do workers complain that protectors interfere with their ability to do their jobs? Do they interfere with spoken instructions or warning signals? Are these complaints followed promptly with counseling, noise control, or other measures?

13. Are employees encouraged to take their hearing protectors home if they engage in noisy non-occupational activities?
14. Are new types of or potentially more effective protectors considered as they become available?
15. Is the effectiveness of the hearing protector program evaluated regularly?
16. Have at-the-ear protection levels been evaluated to ensure that either over or under protection has been adequately balanced according to the anticipated ambient noise levels?
17. Is each hearing protector user required to demonstrate that he or she understands how to use and care for the protector? The results documented?

[Back to Top](#)

## **Administrative**

Keeping organized and current on administrative matters will help the program run smoothly.

1. Have there been any changes in federal or state regulations? Have hearing loss prevention program's policies been modified to reflect these changes?
2. Are copies of company policies and guidelines regarding the hearing loss prevention program available in the offices that support the various program elements? Are those who implement the program elements aware of these policies? Do they comply?
3. Are necessary materials and supplies being ordered with a minimum of delay?
4. Are procurement officers overriding the hearing loss prevention program implementor's requests for specific hearing protectors or other hearing loss prevention equipment? If so, have corrective steps been taken?
5. Is the performance of key personnel evaluated periodically? If such performance is found to be less than acceptable, are steps taken to correct the situation?
6. Safety: Has the failure to hear warning shouts or alarms been tied to any accidents or injuries? If so, have remedial steps been taken?