



# UPDATE

The Newsletter of the Council for Accreditation in Occupational Hearing Conservation

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## Chairperson's Message

by Jeffrey C. Morrill, MS ~ Chair



Administration of a hearing protection program can be a real challenge for the OHC as employees frequently object to

wearing anything in their ears. The common complaints are virtually the same and create situations that are pretty tough to deal with as the complaints are either related to pain, discomfort or safety issues:

- ⊗ "They Make My Ears Itch"
- ⊗ "They Hurt My Ears"
- ⊗ "They Give Me Ear Infections"
- ⊗ "They Make My Ears Ring"
- ⊗ "They Keep Me From Hearing My Machines"
- ⊗ "I Cannot Hear People When They Are Speaking to Me"

Solutions given to the employee are usually not acceptable - **You Have to Wear Them Anyway!**

In this situation, the only thing you can expect from the employee is non-compliance. Unfortunately, the most frequent method of non-compliance is the way that the employee wears the HPD. That is to say, they will only insert the protector enough to minimize their discomfort or fear of wearing them. The result, of course, is that the amount of actual protection to the employee will probably be insufficient.

Selection of hearing protection is often based upon the Highest Noise Reduction Rating (NRR). In reality, the laboratory NRR is a number that has been achieved in an attempt to determine what the optimum attenuation of the HPD is under Laboratory Conditions. This is generally A Meaningless Number in the typical industrial setting. It is absolutely meaningless when the employee chooses to either alter the HPD or place it only partially into the ear canal to minimize a discomfort or fear that they are experiencing.

Employee complaints may be real and need to be resolved to avoid either under or over protection. A good deal of attention has been paid to the issue of over protection in recent years. In fact, most noise exposures in industry are

between 85 and 90 dB, which do not require the highest NRR possible. If the employee has too much protection, the complaints about not being able to hear in noise may be real. It may be likened to having sunglasses on during a cloudy day - they can actually make it difficult to see if they are too dark. The solution is either less protection or a different color lens. The same is true with hearing protection. Even the highest noise exposures can usually be accommodated with insert HPD's alone. The use of "Dual Hearing Protection" creates the greatest problems in terms of employee complaints and only unusual noise exposures require it if the insert HPD is worn properly.

In the case of discomfort or pain, about the only solution is to try different HPD's and have an acceptable variety available for the employee to choose from. No single HPD works for everyone. Ears come in different sizes and shapes and each person has an individual level of sensitivity or tolerance for something in the ear canal or over the ear. The use of custom hearing protection is often a solution for the employee that has difficulty using "OFF THE SHELF" protectors. Again, the protector that satisfies the employee

*continued on back page*

## How Tinnitus and Other Factors Contribute to Unreliable Noise-Induced Hearing Assessment

by Peter C. Weber, MD, Medical University of South Carolina

Performing a basic pure-tone hearing test appears, at first glance, to be a simple, straightforward procedure, and is, with many patients. However, there are several factors that may be encountered, which if not noticed, may invalidate the test results. The following discussion will identify some of the most common sources of test unreliability. Suggestions for the examiner are offered that can improve test reliability and validity, and when the patient should be referred for a follow-up evaluation to the appropriate professional with more expertise.

**Temporary threshold shift (TTS).** TTS is a temporary loss of some hearing caused by exposure to loud noise (in excess of 90 dB) for one or more hours. The

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## UPDATE

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Articles should be submitted, with a black and white photograph of the author. The *Update* is available to individuals not certified by CAOHC at an annual subscription rate of \$15.

Payment must accompany request:

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Opinions expressed in the *Update* are those of the authors, and do not necessarily reflect official CAOHC policy. ©CAOHC 1997

### "SELECTING HEARING PROTECTION" GUIDE

One of CAOHC's goals is to provide education and information in occupational hearing conservation. CAOHC has purchased the printing rights to 7 practical guides from the National Hearing Conservation Association.

CAOHC will print one new brochure from the NHCA series in this and upcoming issues of the *UPDATE*. We hope that you will find this comprehensive brochure helpful in your hearing conservation efforts. See Page 3 NHCA contact for additional copies.

### Tinnitus and Other Factors

*continued from page 1*

amount of TTS and how long it takes for hearing to recover depends on the level of the noise and the length of exposure. Along with hearing loss is a ringing type sound in the ear called "tinnitus." To assure that the hearing test is representative of the patient's true hearing and not inflated by TTS, the examiner should ascertain that the patient has not been exposed to loud noise for at least 16 hours before the hearing test.

**Tinnitus.** This a symptom that could be due to a variety of causes such as: stress to the ear as in the case of TTS from noise exposure, permanent hearing loss, ear infections, certain medications, hypertension, and brain lesions. The overwhelming most common reason for tinnitus is damage to the ear from noise exposure resulting in hearing loss.

The problem tinnitus presents when performing a hearing test is that the patient may have trouble differentiating the test tones from their tinnitus when they are similar in pitch. Thus, some hearing thresholds may appear to be better or worse than they really are due to confusion between the tinnitus and test tone. If the patient reports that he is having difficulty with the test because of tinnitus, first, make certain that the tinnitus is not caused by exposure to noise immediately before the test. If the patient was recently exposed to noise, the hearing test should be rescheduled. If the tinnitus is chronic, there is a simple way to minimize its

effects on the hearing test. The patient should be instructed that the tone will be presented in a certain pattern, such as in groups of three short bursts, and they should make sure that they hear the full pattern before responding. If the patient begins imagining that they are hearing the pattern, indicated by an increase in the number of false responses, the pattern should be changed.

**Malingering.** Occasionally, a patient will purposefully exaggerate their inability to hear for a variety of reasons. It is important to recognize when a hearing evaluation is invalid due to malingering. Some common indicators of malingering are: a substantial change in hearing since the last test; inconsistent responses during the hearing evaluation; and ability to hear conversation much better than the audiogram would indicate. If the validity of the hearing test is suspect, the patient should be retested on a later date or referred to a facility with expertise in testing difficult patients.

**Findings that warrant referral for further testing.** The following conditions may indicate a serious problem and the patient should be referred for further medical evaluation:

1. Actively draining ear.
2. Sudden or rapidly progressive hearing loss in one or both ears.
3. Unilateral hearing loss of recent onset that has not been evaluated.
4. Conductive hearing loss greater than 15 dB.

### CD Workshops Announced

The October, 1997 Course Director Workshop will be held Friday, October 10, 1997, in Denver, Colorado at the Embassy Suites - Denver International Airport. This workshop is for Course Directors who are planning to initially certify or use the workshop method to recertify. Applications must be received in the CAOHC office no later than September 10, 1997 and can be obtained by phoning the CAOHC office at 414/276-5338 (or e-mail caohc~globaldialog.com).

The Doubletree Guest Suites-Baltimore/Washington International Airport, Baltimore, Maryland will be the site for the CAOHC Spring, 1998 Course Director Workshop. The date for the workshop is Friday, March 27, 1998.

The Fall, 1998 CD Workshop location will be Chicago, Illinois. No date or hotel location has been announced.

More information on these workshops will follow in later issues.

There's More than Meets  
the Eye — or the Ear!

**Double Hearing Protection** (earmuffs over earplugs) may be used in very noisy areas for daily average exposures greater than about 105 dB(A). The rule of thumb is that properly fit double protection adds about 5 dB to the protection rating of the higher rated HPD. Using plugs with a nominal protection of 20dB and muffs with a protection of 20 dB does NOT give 40 dB, but something closer to 25 dB.

**Hearing aids are NOT hearing protectors.** Most hearing aids are vented, making them useless as hearing protectors whether they are turned on or off. Do not use hearing aids in high noise areas; they can significantly aggravate noise exposure conditions.

**Electronic HPDs** come in two basic varieties. The communication/limiter headset consists of earmuffs with electronics built in to take either outside sounds or radio communication and electronically limit the level on the inside of the muff cup to a safe value. This can be used for highly mobile people, like fork lift drivers, who frequently go in and out of noisy areas.

**Active HPDs** use sound sensors, amplifiers, and speakers to generate "anti noise" or cancellation wave patterns to reduce the noise inside the earcup. The active technology available in either an open-back-headset (like a Walkman™) or regular closed-cup earmuffs, is primarily effective for low-frequency (below 500 Hz) noise and for specialized applications, such as when combined with electronic communication systems. The open-back versions, which provide less than 10 dB of attenuation at and above 1000 Hz, are intended primarily for reducing annoyance rather than protecting from noise hazard.

Hearing Protection Can  
Save Hearing

**Hearing Protection Devices (HPDs)** are one component of an effective hearing conservation programs. HPDs can protect the delicate hearing system from the effects of noise on the job and off.

HPDs come in various shapes, sizes, and protection levels. While there is an HPD to suit nearly every person and situation, no single HPD is right for every job, every person, or every noise environment.

HPDs must be selected and properly fitted based on the noise environment where they will be used. Too little protection does no good; too much can interfere with communication and result in employees feeling isolated from their surroundings.

This pamphlet is intended to show the various types of HPDs available and give some guidelines where each might be appropriate. NHCA endorses no specific manufacturer or distributor of HPDs.

Fold Here

For more information, contact:

**NHCA** National Hearing Conservation Association  
611 East Wells Street, Milwaukee, WI 53202  
414-276-6045 (W), 414-276-3349 (F)

Printed on recycled paper

NHCA thanks Elliott H. Berger for his comments and editorial contributions to this project 2.96

Guide #1

A practical guide to:

# Selecting Hearing Protection



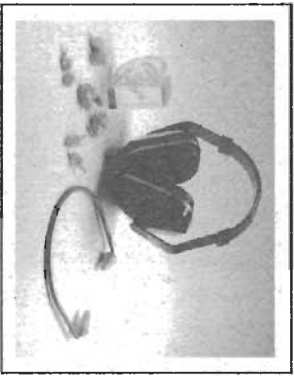
National Hearing Conservation Association

*The mission of the  
National Hearing Conservation Association  
is to prevent hearing loss due to noise  
and other environmental factors  
in all sectors of society.*



There's no such thing as the best...

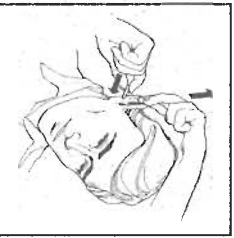
There's no such thing as the "best" hearing protector. Needs vary by individuals, noise environment, on-the-job communication needs, interaction with other types of safety equipment, and other variables. The "best" HPD is the one that will be consistently and properly used, all day, every day. Keep in mind that the object is to obtain a good and comfortable seal against noise and that any leak



seriously compromises the protection offered by HPDs. Most environments require 15dB or less of real protection. The following are some HPD options:

### Formable Insert Plugs

Most popular varieties are made from expandable, slow-recovery foam. To use, slowly roll and compress plugs into a very thin cylinder and insert well into the ear canal. Fitting is easier if you reach around the head to pull the ear outward and upward during insertion (see figure). **The Good:** Properly inserted, foam plugs offer among the best protection available and yet are found to be very comfortable for most wearers. **The Bad:** Some manual dexterity is required to roll and insert the plugs, and they are subject to contamination in dirty environments, and they are generally treated as limited-use or "throw away" products.



### Premolded Plugs

These are typically molded from soft plastic which is preformed to fit the ear. Reach around the back of the head and pull outward and upward on the ear while inserting these plugs until they feel like they are sealing the ear. **The Good:** Premolded plugs are relatively easy to insert and are reusable. **The Bad:** Although some of the newer versions are one-sized products, many are sold in two or more sizes and must be individually sized for each ear. They can work loose while wearing and require resealing.

### Custom Molded Plugs

Individual impressions are made of each ear canal using a quick-curing material. For some products, the impressions themselves are coated and sealed to become reusable earplugs; for others, the impressions are sent to a lab to make a subsequent custom earmold. **The Good:** Some employees like the individual attention of having their own earplugs molded and fit, and for some ears custom earmolds are especially comfortable. **The Bad:** Custom plugs are expensive, especially when the employee/technician time is considered as a cost. Slight and normal changes in ear canal size may require taking new impressions.

*"The 'best' HPD is the one that will be consistently and properly used, all day, every day."*

### Semi-Inserts/Canal Caps

These consist of a lightweight band with soft rounded or conical pods or flexible tips that seal at or near the entrance of the ear canal. **The Good:** They can be useful for intermittent exposures, since they are quick to put on

and take off and easy to hang around the neck when not in use. **The Bad:** They generally provide less protection than either plugs or muffs and aren't usually recommended for continuous long-term use because of discomfort.

### Earmuffs

Consist of rigid cups with soft plastic cushions that fit around the pinna (outer ear) and against the head. The muffs must fully enclose and seal around the ears to properly block noise. **The Good:** Earmuffs are easy to use and fit, and to put on and take off, and therefore generally require less training in use. They provide consistent protection in most cases. **The Bad:** Safety glasses, long hair, and beards may interfere with a good seal, or the muffs themselves may interfere with other safety equipment like helmets and hoods. In addition, they may feel hot or heavy with long periods of use.

### Play it by the Numbers- Noise Reduction Estimates

Labeled Noise Reduction Ratings (NRRs) are based on optimized lab testing and bear little resemblance to what groups of users get in practice. Use the presence of such a rating not as a buying guide, but as an indicator that a device has been designed and tested for noise reduction. Labeled NRRs typically vary from 20-30 decibels; in practice the protection that can normally be achieved is about 10-20 decibels or less, especially when poorly fitted. This modest degree of protection may be sufficient for some industrial environments as long as the devices are worn consistently; however, the highest values of attenuation are achieved by wearing foam earplugs, earmuffs, or a combination of those two.

## "Who is Your Professional Supervisor?"

Barbara Panhorst, EdD RN COHN-S

Chair, Occupational Hearing  
Conservationist Committee and

CAOHC Representative of the American Association of  
Occupational Health Nurses

As a consultant to industry, this is one of the first questions I ask when reviewing a company's occupational hearing conservation program (HCP). The answer I receive is usually a good indicator of the quality and compliance of the program.

Frequently, I am told the Professional Supervisor is the occupational health nurse or the occupational hearing conservationist (OHC) because this is the person the company sent to be trained in hearing testing. Sometimes the human resource manager, industrial hygienist, or safety professional is identified. Occasionally, the company doesn't know who the Professional Supervisor is and, in fact, is not aware of the OSHA requirement for this individual.

Why is there confusion in this area? The term "Professional Supervisor" is never mentioned in 29 CFR 1910.95; however, the qualifications and particular duties of the supervising professional are well-defined in the preamble and hearing conservation amendment (HCA) itself. Employers, and even the designated Professional Supervisor, ask what and where does it say what the supervising professional's responsibilities are.

### The Role of the Professional Supervisor in the HCP

The preamble to the HCA discusses the obligations of the supervising professional.

### Audiometric Testing

*The standard envisions that persons administering audiometric tests will ensure the appropriateness of the test environment and functionally calibrate and maintain the audiometer; in addition, this person will screen audiograms to identify problem audiograms needing further evaluation by a professional*

*and audiograms with standard threshold shifts. ....the responsibility for the direction of the hearing conservation program should remain "in the hands of a professional audiologist, otolaryngologist, or physician".*

### 14 Quiet Hours

*Employers or professionals supervising audiometric programs are, of course, free to prohibit the use of hearing protectors to provide quiet hours before the baseline audiogram if, in their judgement, the circumstances so warrant.*

### Grandfathering of Baseline Audiograms

*After review of the evidence on this issue, OSHA is reaffirming its position...of allowing the grandfathering of baseline audiograms. This policy is consistent with the exercise of professional judgment. It is the responsibility of the professional supervising the hearing conservation program to determine which pre-existing audiograms are acceptable and which to choose as the baseline.*

### Evaluation of Audiograms

*These professionals are responsible for supervising the employer's audiometric test program and ensuring that tests conducted by technicians are carried out properly, that the test equipment is calibrated, and the test room is sufficiently quiet. Professional supervisors also determine the need for employee referral for further testing when test results are questionable or when problems of a medical nature are suspected. Because these professionals have extensive education and training in audiometry and the recognition of various types of hearing loss, they are considered to be the most qualified to oversee a testing program.*

### Revised Baseline

*In light of the evidence to the record, OSHA has decided that an annual audiogram may be substituted for the baseline audiogram if the professional supervising the program determines that the employee has experienced a persistent STS or has shown a significant improvement in hearing activity.*

### Performance Criteria

*OSHA believes that it should be left to the judgement of the professionals supervising the audiometric examinations and analyzing the results to advise the employer concerning the effectiveness of the employer's hearing conservation program.*

### PART 1910-(AMENDED)

The HCA itself further identifies the responsibilities of the professional supervisor:

*(g) (3) Audiometric tests shall be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council for Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper function of the audiometer being used. A technician who operates a microprocessor does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.*

*(7) (iii) The audiologist, otolaryngologist, or physician shall review problem audiograms and shall*

continued on next page

**OHC Corner**

*continued from page 5*

*determine whether there is a need for further evaluation.*

*(8) (ii) Unless a physician determines that the standard threshold shift is not work-related or aggravated by occupational noise exposure, the employer shall ensure that the following steps are taken when a standard threshold shift (STS) occurs:...*

*(9) Revised baseline. An annual audiogram may be substituted for the baseline audiogram when, in the judgement of the audiologist, otolaryngologist or physician who is evaluating the program:.....*

**Summary**

A professional supervisor can only be an **audiologist, otolaryngologist, or other physician.** Audiometric technicians (whether they operate a manual or microprocessor audiometer) do not need to be certified but everyone must be able to show

competence in the proper use, maintenance, calibration and functioning of the audiometer used and **must** be responsible to an audiologist or physician. Today, 14 years after promulgation of the HCA, some employers still believe if they use a microprocessor audiometer they do not need a professional supervisor to oversee their HCP. Only a physician can determine the job-relatedness of a standard threshold shift (STS). This information will help to determine the listing of the STS on the OSHA 200 Log.

There are specific responsibilities designated to the Professional Supervisor. These include:

- Supervising the employer's audiometric program
- Assuring audiometric technician training and supervision of competence.
- Determination of the protocol to achieve the fourteen-hour quiet period for the baseline audiogram.
- Determination of the selection of baseline audiograms.

- Determination of the need for employee referral.
- Establishing criteria (written protocols) for the OHC to review *routine* audiograms and refer *problem* audiograms for professional review.
- Advising employers concerning the effectiveness of the HCP
- Maintaining responsibility for program direction

It is not unusual for a person to have the title of Professional Supervisor and not fully understand the accountability of the position. Every employer should review these responsibilities with their professional supervisor to help assure compliance. I recommend that business and industry send their supervising professional to a CAOHC Occupational Hearing Conservationist Course. This will provide an opportunity to learn the OSHA requirements for occupational hearing conservation and better understand the duties of the OHC.

**TEN MOST ACTIVE COURSE DIRECTORS FOR 1996**

Recalculation of additional OHC certifications has changed the top CAOHC Course Director list for 1996.

Thank you and congratulations to these Course Directors for their ongoing efforts to improve and grow the numbers of occupational hearing conservationists dedicated to promoting healthy work environments.

- |   |  |
|---|--|
| 1) William Wolfe, MA #764<br>Roswell, GA  | 6) Pamela Gordon, MS CCC-A #539<br>Health Testing Services<br>Danvers, MA          |
| 2) Timothy Swisher, MA CCC-A #888<br>Pittsburgh, PA                             | 7) Andrew Stewart, MA CCC-A<br>#434 ELB, Chapel Hill, NC                           |
| 3) Robert Connelly, MA #107<br>Audiometrics, Inc., Lake Zurich, IL              | 8) Kathryn Deppensmith, MS CCC-A<br>#853, Nevada City, CA                          |
| 4) Melette Meloy, MS #858<br>Occupational Health Dynamics,<br>Birmingham, AL    | 9) Thomas Simpson, PhD CCC-A #919<br>Wayne State University,<br>Detroit, MI        |
| 5) Mary McDaniel, MS CCC-A #977<br>Pacific Hearing Conservation,<br>Seattle, WA | 10) John Elmore, MA MBA #675<br>Precision Hearing Conservation,<br>San Antonio, TX |

(These standings determined by number of courses held throughout 1996 with the most students certifying/recertifying)

**OHC Certification**

CAOHC Certification is valid 5 years from the date of the original 20 hour course. Recertification at an 8 hour course must be made by the expiration date of your CAOHC issued certificate. Your application must be filed with the CAOHC office to be valid. Contact CAOHC staff to verify certification or to locate an approved CAOHC course by calling 414/276-5338...or locate courses at CAOHC's website.



<http://www.globaldialog.com/~caohc>  
e-mail our office at  
[caohc@globaldialog.com](mailto:caohc@globaldialog.com)

# Upcoming OHC Certification and Recertification Courses\*

Approved March 1, 1997

Date	City	Course Director	Phone	Date	City	Course Director	Phone
7/7	Philadelphia, PA	Rhodes, Dr. Robert	713/869-6664	9/3	Euclid, OH	Snyderwine, Carol	(216) 692-7466
7/8	Brooks AFB, TX	Waldo, Tressie	(Air Force)	9/3	Indianapolis, IN	Cook, George	(910) 665-1818
7/9	Albuquerque, NM	Harlan, W.H.	505/275-1415	9/8	Bellevue, WA	McDaniel, Mary	206/706-7352(R)
7/9	Amherst, NY	Nelson, David	716/633-7210	9/8	Syracuse, NY	Oviatt, Dana Dr.	315/428-0016
7/9	Brookfield, WI	Hase, Meredy	(414) 547-2227	9/10	Buffalo, NY	Swisher, Timothy	(412) 367-8690
7/9	Washington, DC	Elmore, John	(800) 357-5759	9/10	Cleveland, OH	Wolfe, William	(770) 518-0496
7/14	Piscataway, NJ	Kelly, Ellen	(908) 238-1664	9/10	Maple Shade, NJ	Stepkin, Richard	(609) 435-7200
7/15	Charlotte, NC	Shackelford, Richard	404/294-4672	9/10	Memphis, TN	Prince, Dr. Jane	870/972-1166
7/15	Greensboro, NC	McCall, Kirsten	(910) 665-1818	9/10	New York, NY	Elmore, John	(800) 357-5759
7/15	Kansas City, MO	Ratliff, Linda	(R)	9/11	Birmingham, AL	Deppensmith, Kathryn	713/869-6664
7/16	Atlanta, GA	Meloy, Melette	(205) 980-0180	9/15	Westmont, IL	Stukas, Natalie	(630) 241-0990
7/16	Atlanta, GA	Wolfe, William	(770) 518-0496	9/16	Brooks AFB, TX	Waldo, Cpt. Tressie	(Air Force)
7/16	Greensboro, NC	McCall, Kirsten	(910) 665-1818	9/16	Greensboro, NC	Juarez, Omar	(910) 665-1818
7/16	Harrisburg, PA	Swisher, Timothy	(412)367-8690	9/16	Lancaster, PA	Pitts, Donna	816/471-3900(R)
7/16	Houston, TX	Pikora, Margaret	713/869-6664	9/16	Marietta, GA	Moore, A. Gregg	770/958-4699(R)
7/16	Jonesboro, AR	Prince, Jane	(501)2-1166	9/16	Marietta, GA	Moore, A. Gregg	770/953-4699
7/16	Kansas City, MO	Ratliff, Linda	(816) 471-3900	9/16	Boston, MA	Deppensmith, Kathryn	713/869-6664
7/16	Orlando, FL	Elmore, John	800/357-5759	9/17	Lancaster, PA	Pitts, Donna	816/471-3900
7/16	Portland, OR	Fairchild, Michael	(503)232-1646	9/17	Piscataway, NJ	Kelly, Ellen	(908) 238-1664
7/17	Ft. Hood, TX	Babeu, Lorraine	(Army)	9/17	Portland, OR	Dolan, Thomas PhD	503/725-3264
7/17	Piscataway, NJ	Kelly, Ellen	(908)238-1664(R)	9/17	Portland, OR	Fairchild, Michael	(503) 232-1646
7/22	Marietta, GA	Moore, A. Gregg	770/953-4699(R)	9/17	White River Junction, VT	Hengen, Dr. Garth	508/752-4663
7/22	Marietta, GA	Moore, A. Gregg	770/953-4699	9/18	Newport News, VA	Hecker, Henry	804/466-5575
7/23	Brooks AFB, TX	Waldo, Cpt. Tressie	(Air Force)	9/18	Pittsburgh, PA	Angelelli, Dr. Roger	(412) 831-0430
7/23	Chicago, IL	Elmore, John	(800) 357-5759	9/18	Portland, OR	Willoughby, Paul	503/228-9497
7/23	Dallas, TX	Harris, Dean	(970) 586-0702	9/24	Chapel Hill, NC	Stewart, Andy	(919) 967-2228
7/24	Rochester, NY	Deppensmith, Kathryn	713/869-6664	9/24	Cincinnati, OH	Elmore, John	(800) 357-5759
8/4	Portland, OR	Atack, Rodney	(503) 228-6479	9/24	Dallas, TX	Harris, Dean	(970) 586-0702
8/5	Chapel Hill, NC	Stewart, Andy	(919) 967-2228	9/24	Houston, TX	Deppensmith, Kathryn	713/869-6664
8/5	Greenville, SC	Guryan, Stephen	(864) 235-9689	9/25	San Diego, CA	Sandlin, Robert	(619) 229-0722
8/6	Birmingham, AL	Meloy, Melette	(205) 980-0180	10/1	San Antonio, TX	Elmore, John	(800) 357-5759
8/6	Boston, MA	Elmore, John	(800) 357-5759	10/3	Ft. Hood, TX	Babeu, Lorraine	(Army)
8/6	Chapel Hill, NC	Stewart, Andy	(919) 967-2228	10/7	Kansas City, MO	Ratliff, Linda	(R)
8/6	Greeley, CO	Kastner-Wells, Laurie	(970) 351-2014	10/7	Wellesley, MA	Gordon, Pamela	508/750-8955
8/6	Hattiesburg, MS	Oshrin, Stephen	(601) 266-5216	10/8	Atlanta, GA	Wolfe, William	(770) 518-0496
8/6	Jacksonville, FL	Green, Nancy	(904) 399-3370	10/8	Brookfield, WI	Korabic, Edward	(414) 288-3428
8/6	Los Angeles, CA	Deppensmith, Kathryn	713/869-6664	10/8	Kansas City, MO	Ratliff, Linda	(816) 471-3900
8/6	Toledo, OH	Greenberg, Herbert	(419) 885-3848	10/8	Little Rock, AR	Prince, Dr. Jane	870/972-1166
8/7	Montgomery, AL	Smith, Dr. Curtis	(334) 887-6302	10/8	Valley Forge, PA	Swisher, Timothy	(412) 367-8690
8/11	Brooks AFB, TX	Waldo, Cpt. Tressie	(Air Force)	10/10	Dallas, TX	Deppensmith, Kathryn	713/869-6664
8/11	Ft. Sam Houston, TX	Ostler, Cpt. Dale	(210) 916-7307	10/14	Cincinnati, OH	Swisher, Timothy	412/367-8690
8/11	Woburn, MA	Heft, Laurel	610/667-1711	10/14	Detroit, MI	Simpson, Thomas Dr.	(313) 577-3339
8/12	St. Louis, MO	Goldstein, Linda	(314) 968-4710	10/15	Portland, OR	Deppensmith, Kathryn	713/869-6664
8/13	Carlsbad, NM	Elmore, John	(800) 357-5759	10/20	Rota, VA	Sim, Lcdr Leslie	(Navy)
8/16	Mansfield, OH	Elmore, John	800/357-5759	10/20	Tampa, FL	Rhodes, Dr. Robert	713/869-6664
8/18	Bremerton, WA	Hewkin, Steven	(Navy)	10/21	Charlotte, NC	Newman, Valerie	(910) 665-1818
8/19	Oakbrook Terrace, IL	Thunder, Thomas	847/359-1068(R)	10/21	Oakbrook Terrace, IL	Thunder, Thomas	847-359-1068(R)
8/20	Little Rock, AR	Prince, Dr. Jane	870/972-1166	10/22	Albany, NY	Hengen, Garth	508/752-4663
8/20	Minneapolis, MN	Elmore, John	(800) 357-5759	10/22	Charlotte, NC	Newman, Valerie	(910) 665-1818
8/20	Oakbrook Terrace, IL	Thunder, Thomas	847/359-1068	10/22	Denver, CO	Harris, Dean	(970) 586-0702
8/20	Santa Fe, NM	Deppensmith, Kathryn	713/869-6664	10/22	Oakbrook Terrace, IL	Thunder, Thomas	847/359-1068
8/28	Chicago, IL	Deppensmith, Kathryn	713/869-6664	10/22	Shelton, CT	Sochrin, Phyllis	(203) 735-4327
9/2	Brooks AFB, TX	Waldo, Cpt. Tressie	(Air Force)	10/23	San Jose, CA	Elmore, John	(800) 357-5759
9/2	Indianapolis, IN	Cook, George	(910) 665-1818	10/29	Omaha, NE	Norris, Thomas	(402) 391-3982
9/2	San Diego, CA	Jackson, CF	(Navy)	10/29	Phoenix, AZ	Elmore, John	(800) 357-5759
9/3	Bellevue, WA	McDaniel, Mary	206/706-7532				

\*The listed dates indicate day one of the scheduled classes; certification courses are 20 hours in length; recertification classes are 8 hours.



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*Chairperson's Message, continued*

may not have the highest NRR, but it may be sufficient for the employee's noise exposure.

Finally, if the employee complains that the HPD causes "RINGING" (TINNITUS) in the employee's ears, you should suspect non-compliance in wearing HPD's. The protector does not cause tinnitus. The sensation of tinnitus is simply experienced when the employee inserts the HPD as it "SHUTS OUT" the outside noise and allows them to perceive the tinnitus that is present. As Dr. Weber's article in this issue explains, tinnitus is one of the clear symptoms of noise exposure. It may go away or diminish over time, with proper hearing protection. However, the complaint may be a clue that the employee is not getting proper protection.

My recommendation is to know the exposure level and noise dose for each employee, have a variety of "Off the Shelf" and custom products that will match the amount of noise reduction needed, personally train the employee how to insert to get the optimum NRR for the specific product, and train the supervisor how to inspect to see that the fit is correct on a day-to-day basis. The alternative will be continued complaints and a "Lot of Noise in Your Day".

## CAOHC Council Members and Their Represented Organizations

<p><b>Chair</b> <i>American Industrial Hygiene Association</i> <b>Jeffrey C. Morrill, MS</b> Kansas City, MO</p> <p><b>Vice Chair</b> <i>American Speech-Language-Hearing Association</i> <b>Susan Cooper Megerson, MA CCC-A</b> Kansas City, MO</p> <p><b>Secretary-Treasurer</b> <i>Military Audiology Association</i> <b>Richard W. Danielson, PhD CCC-A</b> Washington, D.C.</p> <p><b>Immediate Past Chair (Ex Officio)</b> <i>American Association of Occupational Health Nurses</i> <b>Barbara Panhorst, EdD RN COHN-S</b> Taylors, S.C.</p> <p><i>American Speech-Language-Hearing Association</i> <b>Larry Higdon, MS CCC-A</b> Austria, TX</p> <p><i>American Academy of Otolaryngology Head &amp; Neck Surgery</i> <b>Robert A. Dobie, MD</b> San Antonio, TX</p> <p><i>American Academy of Otolaryngology Head &amp; Neck Surgery</i> <b>Peter C. Weber, MD</b> Charleston, SC</p>	<p><i>American Association of Occupational Health Nurses</i> <b>Linda Dolby, RN COHN-S</b> Cincinnati, OH</p> <p><i>American College of Occupational &amp; Environmental Medicine</i> <b>Michael G. Holthouser, MD MPH</b> Louisville, KY</p> <p><i>American College of Occupational &amp; Environmental Medicine</i> <b>Alex F. Sanchez, Jr., MD</b> Charlotte, N.C.</p> <p><i>American Industrial Hygiene Association</i> <b>Dennis Driscoll, MS PE</b> Evergreen, CO</p> <p><i>Military Audiology Association</i> <b>William H. Monk, MA CCC-A</b> Aberdeen Proving Ground, MD</p> <p><i>National Safety Council</i> <b>Merrie Healy, RN MPH</b> Minneapolis, MN</p> <p><i>National Safety Council</i> <b>Jill Niland, CIH CSP</b> Itasca, IL</p>
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