



Hearing Loss Prevention and a Survey of Firefighters

Submitted by: Natalie Rothbauer, Illinois State University

According to the Occupational and Safety Administration (OSHA), approximately 30 million people are exposed to hazardous noise annually, which places them at risk for auditory injuries such as noise-induced hearing loss (NIHL) and tinnitus. Noise-induced hearing loss can be costly to workers as it can interfere with their daily tasks. It may make it impossible to hear important warning signals and other important sounds, possibly resulting in a worker being relieved from duty. Firefighting is considered a hearing critical profession because warning signal audibility could be the difference between life and death (Hong et al, 2013).

A literature review did not reveal a consistent sound exposure profile for career firefighters due to the variable noises and length of work shift. Some articles within the literature review did reveal a commonality in hearing thresholds, a mild to severe loss in the left ear and normal to mild loss in the right ear. A common misconception about hearing loss and firefighters is how occupational hearing standards are applied. There are cases when a firefighter is told that their hearing is “good,” because, according to their hearing test results, they appear to satisfy the NFPA Standard, when actually the individual has a severe unilateral loss. As shown in the excerpt below from the National Fire Protection Association (NFPA) Standard 1582, a variety of certification requirements must be considered when reviewing the auditory-vestibular disposition of firefighters. This raises a concern about the level of hearing conservation and hearing-loss prevention awareness within the community of firefighters. The aim of this study was to understand the knowledge of, experience with, and attitude towards hearing loss and its prevention within the firefighter population using a short 27-item survey. Ninety-nine firefighters participated in this study.

Candidates with the following medical conditions shall not be certified as meeting the medical requirements of this standard: (1) Chronic vertigo or impaired balance as demonstrated by the inability to tandem gait walk. (2) On audiometric testing, average hearing loss in the unaided better ear greater than 40 decibels (dB) at 500 Hz, 1000 Hz, and 2000 Hz when the audiometric device is calibrated to ANSI Z24.5. (3) Any ear condition (or hearing impairment) that results in a person not being able to safely perform essential job tasks. - NFPA Standard 1582 (pp. 11)

Knowledge

Survey data indicated that many firefighters were knowledgeable of some of the aspects of hearing loss and approaches to prevention. One hundred percent of respondents acknowledged that exposure to loud sounds may permanently damage hearing, and ninety-two percent understood that hearing loss from noise exposure is preventable. It was commonly understood by firefighters that individuals with pre-existing hearing loss still need to be concerned about the potential for future loss of hearing (91%). Although firefighters knew that loud sounds could permanently damage the auditory system, only 65% recognized that ringing in the ears can be a warning sign for over-exposure to hazardous noise.

Surprisingly, firefighters did not demonstrate favorable awareness of their hearing conservation programs. According to the NFPA 1500, fire departments are required to develop hearing conservation programs, yet 73% of our survey participants believed they were not currently participating in such programs and approximately 10% were unsure of their participation. More comprehensive and inclusive programs should be implemented to improve the awareness of firefighters enrolled in hearing conservation programs.

Experience

The majority of firefighters (88%) reported that their jobs included hearing critical communications over radios and phones. Nearly half (47%) reported occasional difficulty communicating over radios and phones. Respondents were asked two questions, (1) *Do you believe you have a hearing loss?* and (2) *How many years have you been a firefighter?* Their responses have been presented in the Figure, stratified by years of experience. The data revealed that as work experience increased in years, the percentage of those who self-reported a hearing loss generally increased. Considering the symptoms of a NIHL, one-fourth (26%) reported that they experienced ringing in the ears *sometimes*, while 14% had it *often*, or *daily*. The vast majority of survey respondents indicated that they did not have ear pain, excessive cerumen, or balance problems.

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Update

Published by the Council for Accreditation in Occupational Hearing Conservation, a not-for-profit organization dedicated to the establishment and maintenance of training standards for those who safeguard hearing in the workplace.

Articles should be submitted along with a photograph of the author to ghaugen@caohc.org

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Message from the Chair

Submitted by: Laurie Wells, AuD

On the cusp of the New Year, the freshly fallen, snow brings a quietness, enhancing this natural time of reflection. Remembering the events of the past, processing the meanings, outcomes, and lessons, is readying me to realize the hopes of the future. So much has happened, yet the simple passing of time moves us all forward, even without consciously pausing to reflect, resolve, and renew.

It's so quiet – except for that *ringing*...what is it?

*Ring out the old, ring in the new,
Ring, happy bells, across the snow:
The year is going, let him go;
Ring out the false, ring in the true.**

Ah, the bells, marking the passage of time...how appropriate for my mood.

The work of CAOHC is moving forward too: on a deliberate course, while keeping well aware of where we have been. Fitting now, to highlight some of the intentional efforts made by the Council, the Executive Director and staff, and dozens of volunteers.

Establish and maintain the value of CAOHC certification

A significant effort to secure the value of the occupational hearing conservationist (OHC) credential began in 2009, with the vision, creation and implementation of an OHC standardized written examination. First, a job task analysis was conducted to identify the key content areas to be covered. A pilot study was launched in 2013 and procedures became mandatory in 2014. When initially developed, it was projected that approximately 85% of the applicants would pass, however, the pass rate in 2016 reached a high of 94%.

The OHC Task Force, comprised of professionals who do not offer OHC courses, routinely reviews the performance of the exam questions to ensure the test questions are relevant and unambiguous. New questions are introduced and beta-tested on a regular basis. The content areas are monitored to ensure alignment with the key functions of OHCs. This oversight provides continuous improvement for the examination.

In keeping with the CAOHC mission to *advance hearing conservation worldwide*, the standardized OHC examination is now available in English, Spanish and Chinese. CAOHC CDs have conducted OHC courses in several locations outside the US, including Germany, Honduras, Jamaica, Japan, Mexico, Panama, Peru, Puerto Rico, Trinidad & Tobago, and most recently, in China.

Taking all of these steps helps to reinforce the value of the OHC credential, in part, because all certified OHCs, regardless of location, job type, or background, are tested on the same items worldwide. Holding the credential of Certified Occupational Hearing Conservationist is meaningful!

In addition to focusing on the exam, CAOHC has improved the Course Director (CD) workshop. Content has been revised to emphasize structuring the OHC courses around the primary domains of OHC job requirements. CDs are encouraged to become familiar with adult learning theories and to integrate these principles when instructing. The feedback received from recent CD Workshops has been extremely positive, indicating that the recent changes are beneficial.

Improving resources

For decades, the definitive text book for OHCs and related professionals, has been the CAOHC publication, the Hearing Conservation Manual. It was first published in 1978. In 2015, the 5th Edition was released, with additional chapters, appendices, all in full color format and with an optional accompanying study guide. Sales have exceeded expectations. CAOHC has started partnering with its Component Professional Organizations and now sells through the bookstores of the American Speech Language and Hearing Association and American Society of Safety Engineers. CAOHC is currently arranging for other organizations to follow suit in 2017.

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Promotional events are being conducted to encourage the use of the Manual in academic programs as well.

Building on this success, CAOHC is in the early planning phase of developing a textbook to support the Professional Supervisor of the Audiometric Monitoring Program© credential. The proposed text will fill a gap in the field of hearing conservation by providing the most recent research and guidance for those involved in determining work-related hearing loss, overseeing audiometric monitoring programs, and more.

In the near future, CAOHC will be releasing two multimedia productions targeted for use in the OHC courses and other educational programing. The Anatomy, Physiology, and Diseases of the Ear, originally released in 2000, has been totally reproduced. Once this has been completed, work will begin immediately on the second project, which will cover the Physics of Sound and Noise Measurement and Control.

Alternative education

CAOHC has long-held that in-person interaction between instructors and students is essential to maximize learning. Technology has changed the practice of education and introduced numerous alternative delivery models. To stay relevant, CAOHC needs to keep current with the

realities of the changing educational environment and methods while maintaining high quality educational experiences. Over the last two years, the CAOHC Council has approved policy changes to allow CDs more flexibility in teaching OHC Courses. Too, CDs are encouraged to include multimedia resources to supplement their instruction. Going forward, the Council, together with CDs, are actively investigating alternative educational methods and considering options to further promote learning.

This clamorous ringing I'm hearing in my mind's ear is methodical: both celebrative and somewhat mournful. It's time. Let go the past and welcome the future, with hope. Reflect, resolve, renew. *Ring out, wild bells!**

*excerpts from *Ring Out, Wild Bells* by Lord Alfred Tennyson, in the public domain.

Laurie Wells is a Doctor of Audiology and Senior Regulatory Affairs Specialist for 3M Personal Safety Division, where she supports standards writing and regulatory activity pertaining to hearing protection globally. Before joining 3M, she was the Manager of Occupational Audiology and consultant for Associates In Acoustics, Inc. The experience of working directly with employees at their worksites as well as with corporate level health and safety professionals has helped her understand the real world issues of noise hazards and the challenges of protecting against them.

Register Now!

Professional Supervisor of the Audiometric Monitoring Program Workshop

April 8, 2017 - Indianapolis, IN (Post AAA conference workshop)

April 27, 2017 - Denver, CO (post ACOEM conference workshop)

Visit www.caohc.org to register



Register Now!

Course Director Certification & Recertification Workshop

February 9, 2017- Anaheim, CA (Post JDVAC conference- military only)

February 22, 2017- San Antonio, TX (Post NHCA conference workshop)

Visit www.caohc.org to register



OHC Spotlight on Nancy Kraszewski, RN, BSN, COHN-S, COHC

Submitted by: Gabriela Haugen, Marketing and Education Program Manager



Nancy Kraszewski

Mrs. Nancy Kraszewski is a Corporate Occupational Health Nurse. Nancy has over 30 years of experience working in the occupational safety & health field. Nancy is married, she and her husband Bob enjoy spending time with their children & grandchildren. She is also an active leader in the Stephen Ministry program at her church. I met Nancy in an OHC course I recently attended and had the pleasure of interviewing her.

Gabriela: How long have you been a CAOHC- certified Occupational Hearing Conservationist (OHC)?

Nancy: *I took my first CAOHC certification course in 1986 when I started working as an occupational health nurse & safety manager at a boat manufacturing company in Oconto, Wisconsin. Hearing Conservation was one of the first safety programs I put into place at that company. I remember it generated a lot of excitement among the employees when they took their first hearing tests and implementing the program was a very positive experience.*

I just took the course for the 7th time in November of 2016. So if my math is correct, that means I have been certified for 30 years and this current recertification should take me to the 35-year mark. Yikes!!

Gabriela: Why do you have a passion for hearing conservation?

Nancy: *I have seen both personally & professionally how hearing loss can affect the quality of people's lives. Growing up on a dairy farm, my family was exposed to loud machinery on a regular basis. Both of my parents ended up needing hearing aids. When a person can't hear conversations around them, they isolate themselves and miss out on so many wonderful social interactions with family and friends. Being unable to hear clearly robs a person of some of life's most precious moments.*

By educating employees on the effects of noise and teaching them how to protect their hearing both on and off the job, we can make a significant positive impact on their lives.

Gabriela: What motivates you to maintain this certification and perform the duties of an OHC?

Nancy: *As an occupational health nurse working in the paper industry, I owe it to my employer and our employees, to do the best job possible managing the hearing conservation program and conducting audiometric testing. Taking the CAOHC course and maintaining current certification is one way I can strive to accomplish that goal. Professionally, I believe it is essential for any individual who is conducting testing in the industry to stay current in their practice; the CAOHC course provides an excellent means of doing that. CAOHC also keeps us current in events and changes affecting our field.*

Gabriela: Can you tell us about one of your favorite segments of the course and why you enjoy it?

Nancy: *One of my favorite things about attending the CAOHC course is the exchange of information between the attendees; especially when we are discussing the OSHA standard & interpretations. It is always intriguing to hear the different vantage points and the discussions that result. I also appreciate learning about new hearing protection products and testing equipment available in the field. The instructors have been excellent and I have learned something new every time.*

Gabriela: What is one piece of information that you would share with a new OHC professional that is just entering the field of hearing conservation?

Nancy: *I have several pieces of advice for new OHC professionals; first, make wearing hearing protectors correctly a priority. Ensure your supervisors are enforcing this safety rule. When you are out in your plant, don't hesitate to point it out to an employee when their ear plugs aren't inserted properly. Which brings me to my second point; don't ever assume an employee knows how to properly insert them, even if they have worked in industry for many years. I teach every new employee how to correctly roll & insert an ear plug and make them demonstrate the technique back to me. Sometimes current employees need this same reminder:*

Finally, be creative with your annual training! Yes, you have to cover the OSHA mandated information, but there are fun ways to present the information. Two of the favorites I have used that employees liked were the "JeopEARdy" game where employees compete as teams & guess the answers to questions related to hearing conservation, and the "Say What...? An Introduction to Hearing Loss" tape that demonstrates how difficult it is to distinguish certain words at different levels of hearing loss. Yes, the training has to be done, so might as well make it fun!

Gabriela: What is one thing that has changed over the years that has surprised you the most and why?

Nancy: *Hearing conservation has come a long way in the past 30 years. The most positive change, in my opinion, is that manufacturers are developing machines that are quieter and thus the noise levels our employees are exposed to have been reduced. Engineering out the noise is the best defense against hearing loss. Hearing protection has also improved giving employers many more options to choose from to meet the needs of their employees.*

Hopefully, progress will continue in both of these areas in the future and hearing loss related to noise exposure at work will become a thing of the past.

Gabriela: Thank you for all your helpful insights. Your dedication and passion over the years is greatly appreciated.



Rise of the Tablet Audiometer

Submitted by: Gina Stefanelli

Can you believe that it has been almost 7 years since Apple released the first iPad®? It was April, 2010 and I ordered one the moment they became available in my area. I was intrigued by the potential that this device could offer, and I suspected it would make certain tasks more convenient. In my wildest dreams I could not have imagined how they would change our lives – from how we connect and communicate, to how we receive and share information.

In these 7 years, almost every industry has taken notice, and looked for ways to leverage the power of the tablet. Smart, considering the forecast of worldwide tablet users is estimated to rise to around 1.15 billion people in 2016, and to nearly 1.5 billion by 2020.

This has meant big changes – and big opportunities – for everyone from the automotive industry to music, retail, publishing, education, construction, even farming and marine biology. The healthcare industry has traditionally been slow to adopt new technology, but in the tablet many physicians found a device that they really liked. It offered more portability, a long battery life, and ease of use.

It's not surprising, then, that innovative thinkers recognized that the mobility and portability of these powerful computing devices could also be used to reimagine the traditional audiometer. By 2014 the first clinically validated and commercially available tablet audiometer was released to the market. Comprised of software, the iPad, and a set of calibrated headphones, a new evolution in hearing testing was being realized.

What makes the iPad audiometer particularly appealing is that it is compact, ultra-lightweight, and requires no external power source to function. The most sophisticated systems let you choose between OSHA and ANSI Maximum Permissible Ambient Noise Levels (MPANLs). They also include background noise monitoring and have been validated through peer-reviewed research to function equally well both inside and outside of a sound booth, in a quiet environment. These features alone have the potential to transform how occupational hearing tests are performed. Imagine, as a program manager, that you no longer need to send in a fleet of trucks to perform testing, or have employees take valuable time off of work to visit specialists when annual testing is due.

If you are considering tablet audiometry as an addition to your hearing conservation program, you might want to look for a solution that makes it possible – and simple – to import patient data and historical test results from your traditional system into the tablet environment. You might also want to look for a system that offers multiple testing methods including both manual and automated modes. In manual mode, the systems can be fully controlled by you, the tester, to help meet the specific needs of the employee or the testing environment. This means that you select the frequencies or the types of tests to be performed. But in its automated mode, the system works almost like a game where the employees – using your pre-set configurations – drag and drop a series of icons based on whether or not they hear tones presented at various

frequencies. The beauty of this automated mode is that employees are more engaged during testing and it is fully autonomous. These systems, even in an automated mode, will produce a valid threshold audiogram.

For occupational hearing conservation programs, an exciting feature of tablet audiometry is its ability to function when offline, and in remote locations like on oil rigs, out in the field, or on mining sites, for example. With Wi-Fi connectivity enabled, the data collected on the tablet can be stored, organized, and analyzed in meaningful ways. Test results can be backed-up to compliant storage services, shared among testers or administrators, organized by projects or clients, and easily moved to other reporting systems, if needed. The smartest and most advanced systems will alert, then generate reports, when a threshold shift has been identified.



Today, these tablet audiometers are changing how audiometric monitoring is conducted in the context of occupational hearing conservation programs – and even how certification training for occupational hearing conservationists is being delivered. We know of one well-known CAOHC instructor who is now using SHOEBOX Audiometry, the first validated iPad audiometer, in her courses. Part of her reasoning for adopting tablet technology is that it is a 21st-century tool that allows students to learn on a digital platform rather than analog, with an interface that is likely to be closer to what they will use in their work environments. As a teaching tool, the ability to mirror the iPad to a projection or television screen in the classroom allows the Course Director to teach manual audiometry real-time in a group setting. And because the systems do not require an AC power connection, they are ideal for use in courses taught in hotels or other venues that are not permanent set-ups. For Course Directors who travel, the portability is a huge advantage. It means the difference between having to ship equipment ahead of time or packing iPads in a carry-on bag.

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Thanks in large part to her feedback, the solution continues to evolve. We are working closely together to ensure that SHOEBOS is suitable for teaching manual audiometry in CAOHC-approved certification or recertification courses, and to further enhance usability for all.

Another great example of the use of tablet audiometry in occupational hearing testing is how Mercy Hospital in Lebanon Missouri is using SHOEBOS Audiometry. The manager of their Wellness Services and Occupational Medicine Department is CAOHC- certified and provides occupational health services, including hearing testing, to a variety of industries located across the state of Missouri.

Although their hospital has a sound-treated booth, it is located on the opposite side of the hospital campus from the clinic. An audiologist visits the hospital a few times each week to perform hearing tests in the booth, otherwise, the booth is reserved for other purposes. This was creating scheduling conflicts and the clinic was unable to see as many patients as they would have liked.

They purchased SHOEBOS Audiometry, because it conforms to OSHA testing standards and can be used to perform accurate threshold testing. They like that it has been clinically validated by peer-reviewed research to function comparatively to traditional audiometers outside of a sound booth so the team is no longer constrained by the availability

of either the audiologist, or the sound booth. It also means that the Mercy team can now travel to their clients, rather than having clients have to come to them. Mercy can now see more clients, and their customers are happy because staff do not need to take time off of work for annual testing.

We have come a long way in the past few decades with occupational hearing testing, and tablet audiometry provides a big stepping stone into the future - a future where more tests can be done with less of a loss of productivity, and significant threshold shifts can be more easily identified, categorized, addressed, and reported. This in turn will help to lessen the burden of occupational noise exposure on everyone involved, but especially on our valued workers.



UPDATE Call for Articles

CAOHC Wants to *HEAR* from you!

CAOHC is currently accepting articles for future issues of *UPDATE*, our publication offered at no charge to the entire hearing conservation community. Each edition is posted on our new website, reaching over 22,000 occupational hearing conservationists. Writing for *UPDATE* is your chance to reach thousands of colleagues within the hearing conservation industry who are committed to occupational Hearing Conservation, just like you!

Articles that will be selected must complement CAOHC's mission and goals, as well as be relevant. We are interested in hearing about innovative hearing loss prevention programs, new innovations in training employees to be hearing conservation compliant, your challenges and your successes.

In addition, *UPDATE* places the "spotlight" on an outstanding Occupational Hearing Conservationist, Course Director, or Professional Supervisor. If you know of someone in your company deserves the "spotlight" for their commitment to hearing conservation, please craft a brief testimonial (approximately 75-100 words or less) and include that person's name, your company name and a recent head-shot photo. Your "spotlight" candidate will be added to our next issue, as well as, posted to the CAOHC website.

Submit your article or your "spotlight" testimonial along with your contact information to Gabriela Haugen at ghaugen@caohc.org, or our *UPDATE* Editor, Dr. Antony Joseph, at earsafety@yahoo.com. Also, please let us know what you would be interested in reading in future issues of *UPDATE*. You may send your comments or questions to the CAOHC Administrative Office at info@caohc.org. Thank you again for your interest in *UPDATE*!



– continued from page 1: *Hearing Loss Prevention and a Survey of Firefighters*

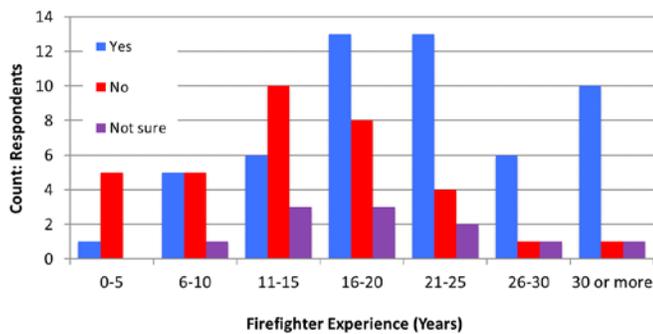


Figure. Firefighter's perception of hearing loss relative to experience (in years).

Attitudes

At least one-third of the survey respondents identified the following reasons for not consistently wearing hearing protection devices (HPDs):

- (1) drivers are prohibited by law from covering ears (31%)
- (2) HPDs do not allow for radio communication to be heard (34%)
- (3) HPDs cannot be worn with protective clothing (33%).

Surprisingly, more than half of the surveyed firefighters (57%) indicated that forgetting to wear HPDs was their most frequent reason for using them inconsistently. The large majority of respondents selected appropriate reasons for wearing HPDs. If HPDs were required, and not optional, 85% of the firefighters indicated that they would wear them. By comparison, slightly less than half (48%) revealed that they would wear HPDs if they were provided for optional use. Survey data indicated that firefighters believe that the use of HPDs will prevent hearing loss.

Conclusions

It appears evident that more intrusive studies should be conducted in order to isolate methods of improving firefighter knowledge about hearing conservation programs, the purpose of using hearing protection, and the need for consistent use of that protection. It is unclear whether these firefighters did not participate in their hearing conservation programs, unknowingly participated in them, or, participated willfully, but the educational component of their hearing conservation programs appeared to fall short of emphasizing main intentions of the program – *prevention*. Empirical evidence supports the fact that hearing conservation programs are necessary for the hearing health and welfare of firefighters; however, additional research is needed in order to fully address the hearing loss prevention needs of firefighters in order to improve their knowledge, experiences, and attitudes regarding noise-induced hearing loss.

Resources

- Hong O, Chin DL, Samo DG. (2013) Hearing loss and use of hearing protection devices among career firefighters in the United States. *J Occup Environ Med* 55:479-486.
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- NFPA 1582, Chapter 6 Medical Evaluations of Candidates. (2013). Quincy, MA: National Fire Protection Association.
- Occupational Safety and Health Administration OSHA, (1983). Occupational noise exposure: Hearing conservation amendment: Final rule. *Federal Register*, 46, 9738-9785.

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Natalie Rothbauer is a first year AuD student at Illinois State University in Normal, IL. She is a graduate of the University of Oklahoma Health Sciences Center, where this research was conducted. Natalie presently works in the Hearing Loss Prevention Laboratory with Antony Joseph, AuD, PhD. This study was presented at the Academy of Audiology Annual Conference in April, 2016 in Phoenix, Arizona

The Council for Accreditation in Occupational Hearing Conservation (CAOHC) Appoints New Council Member

Submitted by: Gabriela Haugen, Marketing and Education Program Manager

Milwaukee, WI—Carol Snyderwine, MHA, MA, CCC-A, CPS/A was recently appointed to serve as a CAOHC Council Member representing the American Speech-Language-Hearing Association (ASHA). Ms. Snyderwine will provide guidance related to occupational hearing conservation programs, and prevention and treatment of occupational noise-induced hearing loss.

Ms. Snyderwine is currently the Manager of Rehabilitation Therapies and Industrial Hearing Conservation Program for the Cleveland Clinic Health System. In addition, Ms. Snyderwine has been a Course Director for CAOHC for many years.

Ms. Snyderwine will serve as a Council Member for up to five years, with an opportunity to renew her term. She will collaborate in leadership decisions with the full Council to continue CAOHC's efforts in promoting and enhancing occupational hearing conservation programs throughout the nation.

CAOHC is a professional organization dedicated to educating, informing and guiding industry and those serving industry on the successful implementation of occupational hearing conservation programs to prevent occupational hearing loss. In addition to ASHA, the CAOHC Council consists of representatives from the following organizations: The American Academy of Otolaryngology – Head & Neck Surgery (AAO-HNS), the American Society of Safety Engineers (ASSE), American Industrial Hygiene Association (AIHA), American Academy of Audiology (AAA), American College of Occupational and Environmental Medicine (ACOEM), American Association of Occupational Health Nurses (AAOHN), the Institute of Noise Control Engineering (INCE) and the Military Audiology Association (MAA).





CPO Update: American College of Occupational and Environmental Medicine

Submitted by: D. Bruce Kirchner, MD MPH CPS/A and Raúl Mirza, DO MPH MSc CPS/A FACOEM



The American College of Occupational and Environmental Medicine (ACOEM) is an organization of physicians who champion the health and safety of workers, workplaces, and environments. It does this by educating health professionals and the public; stimulating research; enhancing the quality of practice; guiding workplace and public policy; and advancing the field of occupational and environmental

medicine. ACOEM is an international society of approximately 5,000 occupational physicians.

Occupational Physicians are called on to evaluate and diagnose occupational illnesses and injuries, and, by no surprise, occupational hearing loss is commonly encountered. The occupational physician often serves as the certified Professional Supervisor (PS) of the audiometric monitoring program. In this role, they oversee all aspects of quality audiometric testing, refer questionable cases, determine work-relatedness, and provide professional consultation to management.

ACOEM conducts an annual conference called “The American Occupational Health Conference” (AOHC). This conference features occasional seminars on noise-related subjects. Additionally, CAOHC’s “Professional Supervisor of the Audiometric Monitoring Program Workshop” has become a regular feature of AOHC’s post conference offerings, since the PS course was first offered in Salt Lake City, UT on March 31, 2004. CAOHC most recently conducted this workshop for AOHC in Houston on July 15, 2016. In attendance were 23 occupational medicine physicians from the United States and Canada, as well as three audiologists. After completion of the course, licensed attendees will be giving an opportunity to take and pass an on-line test. Upon successful completion of the test, they are considered certified as a Professional Supervisor of the Audiometric Monitoring Program. It is anticipated that this workshop will be presented again at the AOHC to be held in Denver on April of 2017.

ACOEM appoints two representatives to the CAOHC Council to serve a 5-year term with the opportunity to serve a maximum of two terms. The current representatives for ACOEM on CAOHC are Raul Mirza, DO, MPH and Donald Bruce Kirchner, MD, MPH.



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CPO Update: American Industrial Hygiene Association

Submitted by: Chandran Achutan, PhD and Karin Wetzel MSPH CIH SGE FAIHA



The American Industrial Hygiene Association (AIHA) is the professional home to industrial hygienists and occupational health specialists worldwide. It was founded in 1939 by a cross-disciplinary group of professionals and government agencies concerned with worker health.

The AIHA is headquartered in Falls Church, Virginia, and has Local Sections throughout the United States. The Association publishes a trade journal called the Synergist, and an academic journal called the Journal of Occupational and Environmental Hygiene (JOEM).

The scientific work of the AIHA is done through committees. There are approximately 50 committees and Special Interest Groups, including one for Noise. In particular, the Noise Committee monitors and investigates technical developments in noise sources, measurement, and controls; hearing loss prevention; and hearing protection. Members

of the committee contribute to ANSI standards as well as CAOHC and the National Hearing Conservation Association (NHCA).

Each spring, the AIHA and American Conference of Governmental Industrial Hygienists organize an international conference attended by nearly 10,000 professionals. This is a great venue to network with colleagues from around the world, get scientific and technical information, and see the latest innovation in measurement devices.

The AIHA nurtures students and young professionals through various programs including student mixers, a Special Interest Group, scholarships to industrial hygiene students, and through a leadership development seminar.

AIHA partners with NIOSH and OSHA to further strengthen the field of industrial hygiene. AIHA appoints two representatives to the CAOHC Council to serve a 5-year term with the opportunity to serve a maximum of two terms. The current representatives for AIHA on CAOHC are Chandran Achutan, PhD and Karin Wetzel, MSPH CIH SGE FAIHA.



CPO Update: American Society of Safety Engineers

Submitted by: Don Garvey CIH CSP and Brent Charlton, CSP



The American Society of Safety Engineers (ASSE) is the oldest professional safety society representing more than 37,000 safety and health professionals in 80 countries. The ASSE was founded in 1911 soon after the tragic Triangle Shirtwaist Factory fire in which 146 garment workers died. In 1967 ASSE appointed a committee to develop a professional certification, and in 1969 the Certified

Safety Professional (CSP) was created. Besides credentialing safety professionals, the Board of Certified Safety Professionals promulgates a Code of Ethics and Professional Conduct that credential holders must adhere to.

The ASSE has 24 Practice Specialty and common interest groups such as Construction, Oil and Gas, Fire Protection and Women in Safety Engineering to help bring together safety professionals to develop and exchange industry or hazard specific information and best practices. The ASSE Foundation advances occupational safety, health

and environmental development, research and education by funding scholarships, fellowships, research grants, and internships.

Other ASSE activities include:

- Secretariat for numerous ANSI standard committees, for example, Respiratory Protection (Z88); Confined Spaces (Z117)
- Administrator of the U.S. Technical Advisory Groups to the International Organization for Standardization on health and safety management systems (ISO 45001).
- Professional Safety, ASSE's monthly flagship publication, a peer-reviewed journal covering topics that affect today's OSH professional.
- Annual Professional Development Conference—a national multi-day conference featuring full day development courses and concurred presentation sessions.

ASSE appoints two representatives to the CAOHC Council to serve a 5-year term with the opportunity to serve a maximum of two terms. The current representatives for ASSE on CAOHC are Brent Charlton, CSP and Don Garvey, COH CSP.

Leadership

The CAOHC leadership otherwise known as the Council consists of two representatives from each of the following Component Professional Organizations (CPO).

- **American Association of Occupational Health Nurses (AAOHN)**
Elaine Brown, RN BS COHN-S/CM COHC
Bryan Topp, RN MSN/MPH COHN-S COHC
- **American Academy of Audiology (AAA)**
Laurie Wells, AuD FAAA CPS/A
Council Chair
Antony Joseph, AuD PhD CPS/A
- **American Academy of Otolaryngology - Head & Neck Surgery (AAO-HNS)**
LTC James Crawford, MD CPS/A
Col Mark Packer, MD USAF MC FS (ret)
- **American College of Occupational and Environmental Medicine (ACOEM)**
D. Bruce Kirchner, MD MPH CPS/A
Council Past Chair
Raúl Mirza, DO MPH MSc CPS/A FACOEM
- **American Industrial Hygiene Association (AIHA)**
Chandran Achutan, PhD CIH
Council Vice Chair
Karin Wetzel, MSPH CIH SGE FAIHA
- **American Speech-Language-Hearing Association (ASHA)**
Pamela duPont, MS CCC-A CPS/A
Carol Snyderwine, MHA MA CCC-A
- **Institute of Noise Control Engineering (INCE)**
Charles Moritz, MS INCE Bd Cert.
Council Secretary/Treasurer
Kimberly Riegel, PhD
- **Military Audiology Association (MAA)**
LTC J. Andrew Merkley, AuD CCC-A CPS/A
Council Vice Chair-Education
Maj John Foster, USAF BSC CCC-A
- **American Society of Safety Engineers (ASSE)**
Donald Garvey, CIH CSP
Brent Charlton, CSP



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To submit an article for publication to a future issue of Update contact the CAOHC Administrative Office at info@caohc.org.

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