



OHC HANDBOOK AND INSTRUCTIONS

This handbook and application packet contains information and guidance for the steps leading to or renewing CAOHC certification as an occupational hearing conservationist (COHC).

Please read this handbook carefully and retain it for reference throughout the certification process.

Do not discard this document

Dear Hearing Conservationist:

Welcome to the Council for Accreditation in Occupational Hearing Conservation (CAOHC) program for the Credentialed Occupational Hearing Conservationist (COHC). CAOHC's mission, established over 50 years ago, has always focused on the advancement of occupational hearing conservation programs (HCPs) with the goal of preventing noise induced hearing loss (NIHL) worldwide. Part of that effort has been devoted to establishing best-practice training programs and certification for individuals involved in HCP services.

This credentialing program, specifically for the occupational hearing conservation (OHC) technician, was developed by experts from the fields of occupational health, acoustical sciences, and safety, in collaboration with experienced technicians. To ensure the COHC credential is (and remains) a highly sought after and recognized credential, CAOHC has employed rigorous psychometric protocols in the examination process that follow both the American National Standards Institute (ANSI) and Institute for Certification Excellence (ICE) guidelines. These protocols create a process that is defensible, consistent, and referenceable.

CAOHC COHC CREDENTIAL

The advantages of obtaining the COHC credential are to demonstrate that an individual has the most up-to-date knowledge and to provide access to the most useful resources in the field of hearing conservation. The Occupational Safety and Health Administration (OSHA) cites this credential in regulatory guidance, [29 CFR 1910.95\(g\)\(3\)](#): “audiometric... testing may be done by a technician who is certified by the Council for Accreditation in Occupational Hearing Conservation.” Many individual states, territories, and municipal organizations however, require technicians conducting occupational hearing testing to obtain the COHC credential for valid occupational hearing testing.

The process to be recognized as a CAOHC COHC includes successful completion of an approved COHC certification or re-certification workshop. In addition to attending the required training, COHC candidates must demonstrate competency in two supervised practicums and obtaining a passing score on a standardized examination. The CAOHC COHC credential is valid for five years.

The standardized examination is used to evaluate the COHC Candidate's accomplishment of the intended learning outcomes and takes place at the completion of the training component of the program. CAOHC COHC training provides the most up-to-date information, preparing the OHC for all potential settings in your role as an OHC.

This candidate handbook has been developed to provide the COHC Candidate information about COHC training. CAOHC recognizes the commitment required and strives to make the training experience positive and successful. Questions related to the content of this handbook may be directed to the office of the CAOHC Executive Director at (414) 276-5338 or email: info@caohc.org.

Best wishes for success with your efforts to become a credentialed COHC.



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HISTORY OF THE OHC

In 1965, the American Association of Occupational Health Nurses (AAOHN) ¹ recognized the need for a program focusing on the prevention of hearing loss. They contacted the American-Speech-Language-Hearing Association (ASHA) ², the American College of Occupational and Environmental Medicine (ACOEM) ³ and the American Industrial Hygiene Association (AIHA) for their expertise. The Intersociety Committee on Noise Control was formed and developed the first *Guide for Training Audiometric Technicians in Industry*.

AAOHN obtained a federal grant to establish five courses using the guidelines from the Intersociety Committee for training and by the late 1960s more than 3,000 nurses, health professionals and industrial personnel had completed this training.

In 1968, a second Intersociety Committee consisting of two representatives from the American Academy of Occupational Medicine, American Academy of Otolaryngology— Head and Neck Surgery⁴ (AAO-HNS), American Conference of Governmental Industrial Hygienists (ACGIH), American Industrial Hygiene Association (AIHA), and the American College of Occupational and Environmental Medicine (ACOEM) collaborated to continue these efforts.

In 1972, the Intersociety Committee met in Chicago with representatives of every important organization in the United States connected with the prevention of occupational hearing loss. A standing committee was identified and named the Intersociety Committee for Standardization of Industrial Audiometric Technician Training and Hearing Conservation. The National Institute for Occupational Safety and Health (NIOSH) underwrote the formation, development and the first-year operation of a *Certification Board for Industrial Audiometric Technicians*⁵. In 1973 the name was changed to the *American Board of Occupational Hearing Conservation Technicians* that, later in the same year, became the ***Council for Accreditation in Occupational Hearing Conservation (CAOHC)***.

CAOHC has remained a non-profit organization with representation from its Component Professional Organizations (CPOs) since 1973. The CAOHC Council currently consists of two representatives from the following CPOs: AAOHN, ACOEM, AIHA, ASHA, AAO-HNS, Military Audiology Association (MAA), and Institute of Noise Control Engineering of the United States of America (INCE/USA), American Society of Safety Professionals (ASSP) and the American Academy of Audiology (AAA). The CPO representatives provide direction for the organization's mission and vision while the CAOHC Executive Director has responsibility for supervising support staff, coordinating the day-to-day operations and ensuring that policies and procedures are developed and carried out in support of the Council's priorities.

One key priority of the CAOHC Council is to provide a superior educational experience, through course instruction and examination, for those seeking recognition as a COHC.

¹ Previously known as: *American Association of Industrial Nurses*. ² Previously known as: *American Speech and Hearing Association*. ³ Previously known as: *Industrial Medical Association*. ⁴ Previously known as *American Academy of Ophthalmology and Otolaryngology*. ⁵ Previously known as: *Audiometric Technicians*.

ELIGIBILITY

A high school or equivalent level of education and reading ability is sufficient to complete the required training and duties associated with the OHC scope of practice.

COURSE OFFERINGS

CAOHC course offerings may be found on the CAOHC website: <http://www.caohc.org>, listed under the OHC Section and can be organized by state, country, month, year or CD. COHC candidates are responsible for notifying course directors (CDs) of any required training accommodations authorized them under the Americans with Disabilities Act (ADA).

COURSE CONTENT (DOMAINS)

CAOHC REQUIREMENTS:

- A CAOHC credentialed CD must be physically present and readily accessible throughout the course.
- The faculty must be comprised of at least three different disciplines represented on the CAOHC Council.
- Other than the course director, two faculty may be represented by an authorized video, skype or webinar.
- All domains and tasks must be covered.
- The standardized examination must be administered in accordance with CAOHC testing requirements.

OHC exam Blueprint:

The OHC exam blueprint consists of a number of major topic areas that have been identified by OHCs, CDs, Professional Supervisors (PSs) and CAOHC council members as critically important for the OHC to perform their job. These major topic areas are referred to as *domains*. Within each domain there are several associated *tasks* that are also considered important skills for any OHC. Each CD will cover the domains and the associated tasks, as appropriate, during both the initial and recertification courses.

DOMAINS:

D1. Hearing Conservation (Overall): This domain introduces the concept of noise-induced hearing loss (NIHL), its prevalence, sources and potential risks. This domain also addresses the distinction between regulatory compliance and best practice as well as CAOHC's role in occupational hearing conservation efforts.

TASKS – The OHC is expected to:

- Understand the mission of CAOHC and its significance in the role of the OHC, CD, and PS.
- Understand the relationship of Hearing Conservation Program (HCP) regulations and compliance to best practices.
- Understand the auditory effects of noise.
- Identify potential sources of hazardous noise in both occupational and non-occupational work settings.
- Understand the impact of hearing loss, tinnitus and associated disorders on quality of life, along with the social and psychological consequences.
- List the professional disciplines and their roles in HCPs.
- Understand the historical background of hearing conservation and the role CAOHC has played in establishing best practices.
- Estimate the prevalence of noise-induced hearing loss (NIHL) in various populations.

D2. Anatomy, Physiology and Diseases of the Ear. This domain covers the major parts of the ear and their function. In addition, different causes and types of hearing loss and the typical audiometric configurations associated with each will be introduced.

TASKS – The OHC is expected to:

- Identify the major parts of the ear and describe their function.
- Understand the relationship between tinnitus and NIHL.
- Differentiate between a normal audiogram and an audiogram configuration which is typical for NIHL.
- Identify the typical symptoms associated with various types of hearing loss.
- Understand common medical conditions that can cause hearing loss.

D3. Hearing and the Physics of Sound and Performing and Explaining a Hearing Test. This domain introduces terms and concepts necessary for understanding the various properties of sound and noise.

TASKS – The OHC is expected to:

- Understand the definition of frequency (Hz)/pitch and its relationship to noise measurement and hearing threshold data.
- Understand and explain thresholds and how they apply to an HCP.
- Understand the definition of intensity (dB)/loudness and its relationship to noise measurement and hearing threshold data.
- Understand sound by its temporal characteristics (intermittent, steady state, impulse/impact).
- Understand sound-weighting scales and how they apply to an HCP.

D4. Federal and State Regulations Related to Occupational Noise-Induced Hearing Loss. This domain provides an introduction to the various regulations governing occupational noise exposure.

TASKS – The OHC is expected to:

- Understand federal hearing conservation regulations, (i.e., OSHA, MSHA, FRA, and DoD) and describe how they differ in application.
- Understand how state and local regulations apply, in contrast to the federal regulations.

D5. Audiometer and Testing Environment: This domain provides an introduction to the terms, requirements and equipment necessary for conducting audiometric testing in an occupational hearing conservation program.

TASKS – The OHC is expected to:

- Understand when the use of manual audiometry testing is necessary.
- Identify the parts and functions of the different settings on audiometers (i.e., manual, microprocessor and computer controlled).
- Understand the process of performing a pure-tone air conduction threshold hearing test.
- Understand the variables that affect the reliability and validity of the hearing test.
- Understand the steps necessary to troubleshoot equipment malfunction.
- Understand audiometer calibration requirements.
- Understand and perform a daily biological calibration (functional check/listening check) for an audiometer.
- Understand the advantages and disadvantages of using a microprocessor versus a manual audiometer.
- Identify the appropriate ambient noise standards for the testing environment.

D6. Audiometric Techniques and Testing. This domain provides an understanding of the correct procedures for conducting pure-tone air conduction threshold testing.

TASKS – The OHC is expected to:

- Understand an audiogram in terms of frequency/pitch (Hz); intensity/loudness (dB) and configuration.
- Understand the challenges associated with audiometric threshold testing and the procedures for dealing with these challenges.
- Identify the components and understand the importance of an aural history exam.
- Understand the benefit and importance of performing an otoscopic screening.

D7. Audiometric Review and Evaluation. This domain discusses the specific roles of the OHC and the Professional Supervisor (PS) in the audiometric monitoring portion of a hearing conservation program.

TASKS – The OHC is expected to:

- Understand the limitations of the OHC as they relate to the review, referral and counseling process.
- Identify problem audiograms for Professional Supervisor review.
- Calculate a standard threshold shift (STS) with and without age correction.

D8. Noise Measurement and Control. This domain introduces important concepts in understanding how noise is evaluated, assigned potential risk, and influenced by engineering controls.

TASKS – The OHC is expected to:

- Understand the meaning and importance of action level (AL) and permissible exposure level (PEL).
- Understand the purpose of noise measurement and engineering control strategies related to the overall hearing conservation program.
- Understand the types of instrumentation used to measure noise and the circumstances in which they are used.
- Understand the meaning and importance of time-weighted average (TWA).

D9. Hearing Protection Device (HPD) Fitting. This domain provides information about hearing protection and why it is important. In addition, this domain covers HPD selection for various noise exposures and how to motivate employees to be compliant in wearing their hearing protection to minimize their risk of hearing loss.

TASKS – The OHC is expected to:

- Understand and explain the rationale for using hearing protection.
- Understand noise reduction rating (NRR) and its relationship to “real world” attenuation.
- Understand the proper selection of a variety of HPDs, (i.e. foam and pre-molded earplugs, semi-insert devices, and earmuffs).
- Understand the importance of proper fitting techniques for HPDs to ensure an adequate fit.
- Understand the care and maintenance of HPDs.
- Identify strategies to motivate workers and management to use HPDs regularly and effectively.
- Understand the various methods of fit verification for HPDs.

D10. Counseling and Training. This domain identifies the scope of counseling as well as the required training components and strategies that are appropriate for adult learners.

TASKS – The OHC is expected to:

- Identify the required hearing conservation program training components.
- List several different training methods for hearing loss prevention within the workplace.
- Provide ongoing training, education and motivation to improve compliance within the hearing conservation program.
- Understand the importance of conducting comprehensive worker hearing protection training on a regular basis.

D11. Recordkeeping and the Hearing Conservation Team. This domain provides guidance regarding the necessary documentation required in a hearing conservation program and the variety of roles found within a hearing conservation team.

TASKS – The OHC is expected to:

- Understand documentation and maintenance of accurate employee records.
- Understand the role of the Professional Supervisor within the hearing conservation program team.

AUDIOMETRIC PRACTICUM

Accurate and reliable audiometric testing is a key aspect of a successful hearing conservation program. Audiometric test results are used in a number of ways, such as:

- determining the stability of an individual's hearing.
- identifying changes in hearing early before they become debilitating.
- providing documentation for regulatory audits.
- providing the basis for determining the overall effectiveness of a hearing conservation program.

During the audiometric practicum, the COHC candidate will practice obtaining valid, reliable audiometric test results as well as conducting the daily biological calibration and functional listening check of the audiometer, taking an employee case history, preparing the employee for audiometric testing, explaining test results, and reviewing the validity of the audiogram. During the practicum evaluation, the COHC candidate will demonstrate competence conducting an audiometric evaluation to the CD or one of the authorized practicum instructors. The requirements for the audiometric practicum are based upon the American National Standard Institute Methods for Manual Pure- Tone Threshold Audiometry (ANSI S3.21).

CAOHC REQUIREMENTS FOR AUDIOMETRIC PRACTICUM:

- One audiometer for every two students.
- One practicum instructor for every 8 students.
 - Note: Any practicum assistant who is not an audiologist must be a CAOHC COHC.
- Coverage of the essential components associated with ANSI S3.21.
- Required practicum time, including examination, is:
 - 180 minutes for those in the initial certification course.
 - 90 minutes for students attending a recertification students.
- The candidate must demonstrate the ability to conduct all aspects of pure-tone, air conduction audiometric testing.

Each step of the practicum is detailed in the Hearing Conservation Student Study Guide.

The components of the audiometric practicum that the OHC will be graded on include at a minimum:

- Seating and test environment.
- Otoscopic screening of ear canal (optional for the audiometric practicum).
- Instructions to person being tested.
- Earphone placement.
- Determination of threshold.
- Interpretation of responses.
- Recording results.
- Determination of standard threshold shift (STS) with and without age correction.

The COHC Candidate is encouraged to use the CAOHC Hearing Conservation Manual to prepare for the audiometric practicum.

HEARING PROTECTION FITTING PRACTICUM - Including Ear Inspection

Included in the scope of practice for an OHC is selecting, instructing, and counseling workers on hearing protection devices (HPDs). Part of assuring that HPDs, especially earplugs, are fit safely and effectively involves inspecting the ear and ear canal. Although OSHA does not require a visual inspection of the ear under its regulatory mandates, it is considered a best practice for obvious reasons. It is not in the scope of practice for the OHC to determine what abnormalities might be suspected but to note whether the ear appears: *normal* or *abnormal*. If abnormal, record as such and bring any concerns to the attention of the proper medical personnel. Always consult the Professional Supervisor (PS) when in doubt about what is being seen.

Each course director (CD) will have their own teaching methods and sequence of presentations and may introduce additional concepts or exercises. To successfully complete this section, the OHC will need to execute steps to the satisfaction of the CD.

CAOHC REQUIREMENTS FOR HPD FITTING PRACTICUM

- One practicum assistant for every 8 students.
- Note: Practicum instructors must be an audiologist, physician, CD or COHC.
 - A representative samples of at least 4 separate types of hearing protection devices (HPDs is required) such as:
 - – passive attenuating earmuffs.
 - – helmets/combination communication HPD.
 - – banded earplugs (canal caps/semi-inserts).
 - – disposable earplugs.
 - – pre-molded earplugs.
 - – custom-molded earplugs.
 - Provide adequate otoscopes, specula, hand-sanitizers and earplugs for class.
 - The allotted practicum time is 60 minutes for students attending the initial certification course and 30 minutes for students attending a recertification course.

Successfully demonstrate proper fitting of a variety of hearing protection devices (HPDs).

The components of the hearing protection fitting practicum that the OHC will be graded on include:

- Instructing the individual being fitted on proper insertion and removal technique.
- Conducting HPD fit verification (visual inspection, acoustic check, tug test, etc.)
- Explaining considerations for HPD selection.
- Counseling on use and care of the HPD.

The COHC Candidate is encouraged to use the CAOHC Hearing Conservation Manual while preparing for the HPD practicum.

STANDARDIZED EXAMINATION

ADMINISTRATION:

- The standardized examination is a computer based on-line proctored examination.
- COHC candidates taking the initial certification course are allotted 60 minutes to complete the exam; recertifying OHCs are allotted 30 minutes to complete the exam.
- The CD is NOT permitted to view the exam or assist OHCs with any of the exam questions.

QUESTIONS:

- The current examination consists of 55 questions for the certification examination and 30 questions for the re-certification examination. Questions are selected from a bank of approved examination questions covering the 11 major domains and associated sub tasks. The number of questions from each domain is based on the standardized examination blueprint. CAOHC maintains a large pool of questions that are used to generate different versions of the exam.
- The exam is available in English, Spanish and Chinese.

OHC EXAM RESULTS NOTIFICATION

Results of the written exam will be sent to each candidate, via email. There are three notification categories:

ON-HOLD NOTIFICATION: Indicates that there is an administrative hold on releasing the exam test results. This may be secondary to administrative or payment issues. The COHC Candidate should contact their CD to discuss the reason for the hold.

PASSING NOTIFICATION: Indicates that the OHC has successfully met all the course and practicum requirements and passed the standardized examination. The message will include:

- A congratulatory message, signifying that the OHC has passed and may now use the COHC designation.
- A link to the CAOHC website.
- The COHC's numeric exam score.
- Instructions on how to download the COHC certificate and a wallet ID card.
- Instructions on how to request a hard copy of the COHC certificate and/or wallet ID card.
- A reminder that recertification will be required in five years.
- Links to valuable OHC resources.

NON-PASSING NOTIFICATION: Indicates that the OHC did not pass the standardized examination. The message will include:

- A message signifying the candidate did not pass the exam.
- A link to the CAOHC website.
- The COHC candidate's numeric exam score.
- Information about how the OHC performed in each domain.
- Instructions on how to schedule a computer-based retest (CBT) through a Pearson VUE Testing center.

Any COHC candidate that does not receive their results in a timely manner should contact the CAOHC office via email (info@caohc.org) or via telephone at 414-276-5338.

STANDARDIZED EXAMINATION RE-TEST

ELIGIBILITY FOR THE TEST:

If the COHC Candidate did not pass the initial attempt at the standardized examination they will have an opportunity to retake the exam.

There is no charge for the **first** attempt.

ADMINISTRATIVE STEPS:

1. The re-test must be completed. The COHC candidate is eligible to re-take the standardized exam 24hrs after the initial attempt. This allows for the COHC candidate to make arrangements to have the re-test proctored and notify CAOHC of the proctor. A proctor is an approved person that administers an exam and upholds the integrity the exam-taking process. Examples of people who could serve as a proctor would be librarians, teachers, police officers, community volunteers, religious leaders, or someone who works in the public service industry.
2. The COHC candidate will enter the CAOHC standardized examination and electronically sign the academic honesty attestation and identify their proctor on the attestation.
3. The OHC candidate will take the standardized examination through the CAOHC LMS.
4. Unofficial results will be available upon completion of the examination in the LMS.
5. The COHC candidate will be notified by CAOHC in the same manner described earlier under “OHC Exam Results Notification.”
6. If the OHC does not pass the first attempt, they may have two additional attempts to pass the exam. They should contact their Course Director to arrange for retake exams. Course Directors may charge a fee for retake exams. After two retakes, the student must retake the OHC Certification Course.
7. Unofficial results will be available upon completion of the re-test; however, the official results will come from CAOHC in the same manner described earlier under “OHC Exam Results Notification.”

FAILURE TO PASS THE THIRD CBT

If the COHC candidate is not successful passing the third attempt, they are required to retake the full certification course if they wish to continue to pursue the COHC credential. This applies to COHC candidates taking either the full certification re-certification course.

CERTIFICATION RENEWAL

COHC credentials are valid for five years. Although the CAOHC administrative office will send each candidate a renewal notice (*one year prior to the expiration and again six months prior to expiration*), individuals are required to keep track of their expiration date. The CAOHC administrative office should be kept up to date on any changes in contact information to avoid missing renewal notices and other relevant information.

RECERTIFICATION EXTENSION REQUESTS

Examples of circumstances where requests for an extension might be appropriate include:

- Family death or illness.
- Military deployment.
- Medical leave.
- Lack of or cancellation of a course.
- Employment-related or other known conflicts with the intended renewal course.

If the COHC needs an extension they must submit an application for extension not later than **30 calendar days prior** to their expiration date. Visit <https://caohc.execinc.com/edibo/OHCExtension/> to apply. Requests for extensions are reviewed by the CAOHC Executive Director and OHC/CD Committee Chair. Decisions will be evaluated on a case by case basis.

If the COHC's certification has expired and an extension has not been approved, the COHC will be required to repeat the full certification course.

SCOPE OF PRACTICE OF THE COHC

Successfully completing the CAOHC course requirements provides you with the qualifications to act within the scope of practice of a Credentialed Occupational Hearing Conservationist (COHC). You are advised to understand the COHC scope of practice and always work within the limitations of the scope of practice unless otherwise qualified. Always consult with your Professional Supervisor (PS) for guidance. The COHC scope of practice can be found on the CAOHC website at: <https://www.caohc.org/training-and-certifications/occupational-hearing-conservationist/about-the-training/ohc-scope-of-practice>.

- Appropriate selection for the environmental noise level.
- Fitting to the individual user.
- Supervision of usage compliance.
- Use and care (cleaning) of hearing protection equipment.

LIMITATIONS and CODE of ETHICS

The COHC certification does have limitations. Many jurisdictions issue official codes of ethics to which individuals must adhere. Whether following an official code of conduct or rules governing ethics, OHCs must stay within the boundaries of their scope of practice. CAOHC training and certification **DOES NOT** authorize a COHC to:

- Assume the role of a PS/A.
- Assume the role of an instructor of other noncertified medical personnel.
- Interpret audiograms.
- Conduct any audiometric testing other than air conduction (e.g., bone conduction testing, speech audiometry).
- Diagnose hearing disorders.
- Independently evaluate HCP effectiveness.
- Conduct noise surveys and analyses.
- Be responsible for noise control solutions.

DISCIPLINARY ACTION

Violation of any of the policies established by CAOHC or exceeding the limitations of the established COHC scope of practice is grounds for revocation of the COHC credential. CAOHC may also report violations to the proper authorities or professional organizations.

- CAOHC will ensure that only valid and actionable complaints are considered and investigated to ensure that all parties involved have an opportunity to document circumstances warranting the complaint and to respond.

Reasons for revocation of the CAOHC credential may include, but are not be limited to, the following:

- Certification period exceeded without renewal or extension.
- Evidence of falsification of any information on any documents submitted to CAOHC.
- Professional misconduct adversely affecting the reputation of CAOHC or any of it's CPOs.

CHANGE OF ADDRESS

If you change your email or postal address, please notify the CAOHC administrative office as soon as possible. Failure to do so may cause you to miss important updates.

RESOURCES

Useful resources can be found on the CAOHC website at caohc.org. Available resources include:

5th Edition Hearing Conservation Manual
Hearing Conservation Student Study Guide
Online Noise Measurement Course