**Training Letter 10-02
Adjudicating Claims for Hearing Loss and/or Tinnitus**

**DEPARTMENT OF VETERANS AFFAIRS**
**Veterans Benefits Administration**
**Washington, D.C. 20420**

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Director (00/21)               In Reply Refer To:  211D

All VA Regional Offices             Training Letter 10-02

SUBJ: Adjudicating Claims for Hearing Loss and/or Tinnitus

**Purpose**

Disability claims filed by veterans for hearing loss and/or tinnitus are among the most common received by the Veterans Benefits Administration and are often related to noise exposure during military service. This letter addresses 1) general information about ear anatomy, the process of hearing, the classification of hearing loss, and tinnitus 2) medical examinations and opinions related to hearing loss and tinnitus, 3) adjudicating claims for hearing loss, tinnitus, or both, and 4) certain aspects of audiology examinations.

There has been no change in current regulations or policies for rating hearing loss and tinnitus, but it is imperative that regional offices are aware of and follow the established guidelines when adjudicating these claims.

This training letter supersedes TL 09-05, which was issued on August 5, 2009, and TL 09-05 will be rescinded as of the date of issue of this letter.

**Questions**

Questions should be e-mailed to VAVBAWAS/CO/21Q&A.

 /S/

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Director

Compensation and Pension Service

Enclosure

**A. Ear Anatomy**

The ear consists of three major areas: the outer ear, middle ear, and inner ear.

1.      The outer ear ends at the tympanic membrane (TM) (eardrum) and consists of:

a. the pinna or auricle, which is the external ear, and

b. the external auditory meatus (or auditory canal or ear canal).

2. The middle ear extends from the TM to the oval window of the inner ear and includes

a.      the tympanic cavity (an air-filled space). The opening for the Eustachian tube is in the tympanic cavity and connects the middle ear space to the nasopharynx.

b.      the ossicles or ossicular chain, which are the three smallest bones in the body. They are the malleus (hammer), incus (anvil), and stapes (stirrup). The malleus is attached to the TM, while the stapes is attached to the membrane of the oval window, which is the entrance to the inner ear. The incus articulates with both of the other ossicles. The ossicles therefore connect the outer ear to the inner ear.

3. The inner ear includes organs for balance as well as hearing. It consists of three parts.

a. the cochlea, a structure that resembles a snail shell and is divided into three fluid-filled channels called the scala vestibuli, the scala tympani, and the cochlear duct. The basilar membrane is a structure that separates the scala tympani from the cochlear duct, and it supports the organ of Corti. The organ of Corti, which is the basic sensory organ for hearing, contains the auditory sensory hair cells that stimulate the neurons of the auditory nerve (Cranial Nerve VIII).

b. the three semicircular canals, which are part of the balance mechanism.

c. the vestibule, which lies between the cochlea and the semicircular canals. It contains the utricle and saccule, which are balance/equilibrium sense organs.

**B.    Process of Hearing**

1. The outer ear funnels sound waves through the external auditory meatus to the TM, which begins to vibrate when struck by the sound waves. The outer ear also has an important role in localization of sounds. The TM sends the mechanical vibrations to the malleus, which is attached to the other ossicles in the middle ear.

2.      The ossicles, in turn, amplify the vibrations, and the stapes transmits them through the oval window in the wall of the vestibule to the cochlea in the inner ear.

3.      In the cochlea the mechanical vibrations are converted to fluid pressure waves that cause thousands of tiny hair cells to produce electrochemical impulses. These impulses stimulate the fibers of the auditory nerve (Cranial Nerve VIII, which has an auditory branch and a vestibular branch and may also be called the vestibulocochlear nerve).

4.      The nerve impulses travel through the auditory nerve to the brainstem and then to the temporal (auditory) cortex of the brain.

5.      The brain perceives the nerve impulses as sound and processes its location, meaning, etc.

 **C. Types of Hearing Loss**

For C&P adjudication purposes, there are four types of hearing loss: conductive, sensorineural, mixed, and central.

1. Conductive hearing loss is due to a mechanical problem in the outer or middle ear. Common causes are middle ear infections or fluid in the middle ear, neoplasms, head injury that damages the ossicles, otosclerosis (deposits of bone around the stapes), cholesteatoma, and perforated TM.

2. Sensorineural hearing loss (SNHL) (also called neurosensory hearing loss, and sometimes informally called nerve deafness) is due to a problem in the inner ear or in the auditory (Cranial Nerve VIII) nerve between the inner ear and the brain. It most often occurs when the tiny hair cells in the cochlea are injured, and there may also be nerve fiber damage. The two most common causes of SNHL are presbycusis (age-related hearing loss) and noise-induced hearing loss (caused by chronic exposure to excessive noise). SNHL is usually characterized by hearing loss at the higher frequencies (3,000 to 6,000 Hz). Other common causes of sensorineural hearing loss are Meniere's disease, vestibular schwannoma (benign neoplasm of the auditory nerve), viruses, and certain ototoxic medications and chemotherapeutic agents.

3. Mixed hearing loss means both conductive and sensorineural forms of hearing loss are present.

4. Central hearing loss is a rare condition that results from disease or injury of the brain. It cannot be detected by routine audiological tests but requires special types of testing. An individual with central hearing loss may be able to perceive sounds but has problems such as difficulty recognizing and interpreting the sounds even when peripheral hearing is normal.

Central hearing loss is sometimes called central auditory processing disorder (CAPD). CAPD is an *auditory-specific* deficit in information processing in the brain and is characterized by difficulty hearing or listening that cannot otherwise be explained by basic audiometric tests. Problems may include difficulty localizing sounds, discriminating sounds, difficulty listening when competing sounds are present, and difficulty following complex instructions.

CAPD is diagnosed by special auditory, communication, and memory tests. Veterans with a head injury (traumatic brain injury) may exhibit similar auditory complaints. These veterans probably do not have CAPD but rather may be suffering from auditory manifestations of traumatic brain injury.

**D. When is Impaired Hearing a Disability? (from 38 CFR 3.385)**

For VA purposes, impaired hearing will be considered to be a disability when the auditory threshold in any of the frequencies 500, 1000, 2000, 3000, 4000 Hertz is 40 decibels or greater; or when the auditory thresholds for a least three of the frequencies 500, 1000, 2000, 3000, 4000 Hertz are 26 decibels or greater; or when speech recognition scores using the Maryland CNC test are less than 94 percent.

**E.     Tinnitus**

1.      What is it? *Subjective tinnitus* is a phantom auditory sensation that is perceived as a sound when there is n  outside source of the sound. It is a symptom rather than an illness or disease. Tinnitus may be perceived in one or both ears or anywhere in the head, and although it is commonly perceived in the ears, it originates in the central nervous system.

Another form of tinnitus, *objective tinnitus*, can be heard by the examiner and usually requires medical attention. Objective tinnitus is rare and is characterized by a fluttering or pulsing sound. Objective tinnitus may be caused by middle-ear muscles, vascular tumors and malformations, or skull base tumors.

2. What are its characteristics? Tinnitus may sound like ringing, blowing, roaring, buzzing, hissing, humming, whistling, or sizzling. It can be either constant or intermittent. Both constant and intermittent tinnitus are considered to be recurrent, which is the requirement under diagnostic code 6260 for assigning a 10-percent evaluation.

3. What are its causes? Tinnitus is a symptom that is associated with many conditions, including acute noise exposure and noise-induced hearing loss. Sensorineural hearing loss, such as from presbycusis or acoustic trauma, is the most common cause of tinnitus. However, the etiology of tinnitus often cannot be identified, because there are so many potential causes that it is impossible to select one. In addition to sensorineural hearing loss, other known causes are Meniere's disease, head injury (including traumatic brain injury), otosclerosis, cerebrovascular disease, neoplasms, numerous types of ototoxic medications, hypertension, kidney disease, dental disorders, and many other medical conditions.

4. What is its onset? The onset may be gradual or sudden, and individuals are often unable to identify when tinnitus began. Tinnitus can be triggered months or years after an underlying cause (such as hearing loss) occurs. Therefore, delayed-onset tinnitus must be considered. This adds to the difficulty of determining the etiology or precipitating cause.

**F.**   **Medical Examinations and Opinions Related to Hearing Loss and Tinnitus**

These guidelines are standard and are unchanged from existing regulations and procedures.

1. When is an audiology examination needed? Common needs will be when the record is unclear regarding the presence, severity, type, or etiology of hearing loss, the relationship of two conditions t  one another, or the presence of tinnitus. This will often be the case when there is no evidence of calibrated audiometry in the record. Older records (before 1980) frequently contain whispered voice tests which cannot be considered as reliable evidence that hearing loss did or did not occur. Whispered voice tests are notoriously subjective, inaccurate, and insensitive to the types of hearing loss most commonly associated with noise exposure. Also see M21-1MR at III.iv.4.B.12.b.

Example #1: A 79 year-old veteran served as a Marine during the Korean War. He filed a claim for hearing loss based on noise exposure during combat in service. He had a recent VA audiogram showing a moderate to severe bilateral sensorineural hearing loss. He is unsure when his hearing loss began but it has become increasingly noticeable to him in recent years. His participation in combat in Korea is confirmed. There are no service treatment records except for normal entrance and discharge exams, and neither included an audiogram, but he had no complaints of hearing loss. An audiologic opinion is needed to determine the likely etiology of his hearing loss, that is, to determine if it is related to his service experiences.

Example #2: A 24 year-old veteran returned from Iraq in 2007 with some complaints of tinnitus developing a few months after discharge. Her audiogram on separation showed some worsening of hearing at the 3000 and 4000 Hz levels compared to her entrance audiogram, but her hearing impairment did not reach the level required to be considered a disability under 3.385. An audiology examination and opinion are required to determine 1) if hearing impairment is present that now meets the criteria to be considered a disability under 3.385, 2) if so, if it is related to service, and 3) if the complaint of tinnitus is related to any hearing loss found. (See number 3 under section I below re *Hensley v. Brown,* 5 Vet.App. 155, 159 (1993).)

Example #3: A 66 year-old veteran was in service from 1961 to 1965, served in Vietnam as a clerk, and did not experience any combat. He has complained of hearing loss since service, during which time he had multiple middle ear infections of both left and right sides. No discharge audiometry examination is available, but his service treatment records show treatment for otitis media on 3 occasions during 1964-65. He has complained of hearing loss for the past 10 years and filed a claim for hearing loss due to ear infections in service. He has medical records showing treatment for otitis media post-service during 1968 and 1970 but none since. A private audiometry test showed a mixed type of hearing loss in the right ear only and mild sensorineural hearing loss in the left ear. An audiology examination and opinion would be needed to determine if he has hearing loss, the type of hearing loss, and if it is consistent with his ear infections either in service or after service, or both, or is more likely due to another cause.

Example #4: A 69 year-old veteran served 18 months in Vietnam in 1964 in non-combat duty. He filed a claim in 2009 for sudden onset in 2008 of severe right-sided sensorineural hearing loss that he believes is related to his service-connected diabetes mellitus. One private physician stated that the hearing loss is due to diabetes while another attributed the hearing loss to labyrinthitis. A VA audiologic and ENT examination are needed to clarify the etiology of the hearing loss and any possible relationship to in-service injury, event, or illness, or to his service-connected diabetes.

2. What needs to be included in an opinion request?

a. When an opinion is requested, identify the evidence to be reviewed, the issue(s) to be addressed, and the claimant's contentions, and provide a summary of the evidence in the case.

b. Identify the evidence to be reviewed by stating on the medical opinion request form the source of the evidence, subject matter involved, and approximate dates covered by the evidence, and by tabbing the evidence in the claims folder. Inform the examiner that his or her review is not limited to the evidence identified on the request form or tabbed in the claims folder.

3. Is a C-file review needed? The C-file must accompany a request for an opinion. A review by regional office (RO) personnel does not substitute for a thorough review of the C-file and other pertinent evidence by the subject matter expert asked to provide an opinion.

4. What should the medical opinion request? The medical opinion request should not ask the provider to determine if hearing loss or tinnitus is service connected, as this is not the function of the provider. Instead, for example, for direct service connection, the in-service injury, event, or illness, should be identified, as well as the current disability (hearing loss, tinnitus, or both) and the examiner asked to provide an opinion as to whether or not the current disability was caused by or the result of the identified in-service injury, event, or illness, if it is not otherwise clear from the records.

5. Tinnitus opinions:

a.      If *service treatment records mention a complaint of tinnitus* and the veteran claims tinnitus and has current complaints of tinnitus, a medical opinion regarding possible causation is not required. Service connection can be established without an opinion about the specific cause of the tinnitus because it began in service.

b.      If there is *no record in the service treatment records of tinnitus*, but there is a claim or complaint of tinnitus, the audiologist is asked on the examination protocol to  offer an opinion about an association to hearing loss, or an event, injury, or illness in service*, if it is within the scope of his or her practice*.

1) If the examiner states that tinnitus is a symptom that is associated with hearing loss, the tinnitus should be service connected and separately evaluated under diagnostic code 6260 if the hearing loss is determined to be service connected. No additional opinion about the relationship of tinnitus to service is needed.

2) If the examiner states that the tinnitus is not related to hearing loss, it will be up to the regional office to make a determination, based on all the evidence of record, as to whether or not the etiology of tinnitus requires further assessment by one or more additional examinations.

3) If there is no hearing loss, it will be up to the regional office to make a determination, based on all the evidence of record, as to whether or not the etiology of tinnitus requires further assessment by one or more additional examinations.

4) If the audiologist is unable to determine the etiology with reasonable certainty, it will be up to the regional office to make a determination, based on all the evidence of record, as to whether or not the etiology of tinnitus requires further assessment by one or more additional examinations.

The type of and need for any additional examination(s) will depend on the veteran's claim as to the cause of tinnitus. If the veteran claims tinnitus due to hearing loss, and the examiner says they are not related, no further action is needed. If the veteran claims tinnitus due to another condition, an appropriate general medical or ENT or other examination and request for an opinion may be warranted. For example, an ENT examination might be needed if tinnitus due to labyrinthitis, cholesteatoma, etc., is at issue, while a general medical examination would be needed if tinnitus due to an ototoxic drug, hypertension, renal disease, etc., is at issue.

Example #1: The veteran claims that he has had tinnitus for the past 6 months, and he has been told by his doctor that it is due to chemotherapy for a service-connected malignancy. He was treated with surgery and chemotherapy for malignant sarcoma of a muscle of the left arm in service 4 years ago. This *determination is not within the scope of an audiologist's practice*, and therefore the regional office should request an opinion about the association from another appropriate non-audiologic provider.

Example #2: The veteran claims tinnitus due to kidney disease and hypertension. He was discharged in 1997, and neither service nor post-service treatment records indicate evidence of kidney disease or hypertension until 2005. There is no record of hearing loss in or after service. No further examination or opinion would be needed to determine the relationship of tinnitus to service, and service connection would be denied.

Example #3: The veteran claims tinnitus and first complained of it in 2002. He was discharged in 2001. He also has a mixed hearing loss that was diagnosed during service, and the audiologist offers an opinion that the tinnitus is associated with (or due to, or a symptom of, or related to) the hearing loss. No further examination or opinion is needed, and the tinnitus should be service-connected. Note that this would not represent presumptive service connection, but service connection based on the tinnitus being a symptom of the hearing loss that was incurred in service.

Example #4: The veteran claims tinnitus due to a head injury in service in 1983. He was discharged in 1988. He also claims hearing loss due to noise exposure in service. Service records do indicate a fall aboard a ship with a mild concussion and lacerations to the scalp but there were no complaints of tinnitus at or after the time of injury until 1997. The veteran's personal doctor (a non-audiologist) provided an opinion that the veteran's tinnitus is due to the in-service head injury. The veteran is 63 years old and now has a diagnosis of neurosensory hearing loss, with date of onset unknown. His service records do not include a discharge audiology examination. In this case, an audiology examination for hearing loss and tinnitus would be in order. The audiologist could offer an opinion about the relationship of hearing loss, if present, to service and about the relationship of the tinnitus to hearing loss. However, since the issue of tinnitus due to a head injury is beyond the scope of an audiologist to determine, if the audiologist states any of the following: tinnitus is not likely due to hearing loss, tinnitus is due to hearing loss but hearing loss likely did not begin in service, or there is no hearing loss, the regional office should order an examination for tinnitus claimed as the residual of a head injury. This examination should be conducted by an appropriate non-audiologic examiner, in order to determine the relationship of the tinnitus to the head injury in service.

6.   When requesting a medical opinion, ask the provider to:

   identify the specific evidence reviewed and considered in forming the opinion,

   provide a rationale (explanation/basis) for the opinion presented, and

   state his/her conclusion using one of the following legally recognized phrases:

**[\_\_\_\_\_]** is caused by or a result of **[\_\_\_\_\_\_]**

**[\_\_\_\_\_]** is most likely caused by or a result of **[\_\_\_\_\_\_]**

**[\_\_\_\_\_]** is as least as likely as not (50/50 probability) caused by or a result of **[\_\_\_\_\_\_]**

**[\_\_\_\_\_]** is less likely as not (less than 50/50 probability) caused by or a result of **[\_\_\_\_\_\_]**

**[\_\_\_\_\_]** is not caused by or a result of **[\_\_\_\_\_\_]**, or

**[\_\_\_\_\_]** I cannot resolve this issue without resort to mere speculation.

By including this language when requesting an opinion, the RO is much more likely to receive the opinion in the acceptable legal language. (The legal language is already provided for the examiner to select from on the computerized examination template that is used for medical opinions.)

***Note***: The phrase 'caused by or a result of' must be modified for opinion requests based on aggravation. For more information on what to include in this type of request, see M21-1MR at IV.ii.2.B.6.c.

7. Reporting of examinations and opinions: Regional Offices should recommend to VAMCs performing audiology C&P examinations that examinations and opinions be reported in CAPRI or QUASAR. The CAPRI (computerized) examination templates are based on VBA Worksheet 1305 (AUDIO). If a non-standard format is used (e.g., locally-developed template or dictation), the content must nevertheless contain the required information. Examinations or opinions that do not contain the required information should be returned as insufficient.

**G. Review of examination reports and medical opinions.**

1. The RVSR should return examination reports as insufficient if:

a. the report does not provide all the required information

b. an opinion is not reported in the correct legal language

c. the opinion uses the correct legal language, but does not provide all the required information

d. an opinion is provided that is contradictory to the evidence

e. an opinion states opposing positions within the report and does not resolve the different positions

f. an opinion is not supported by a logical, well-reasoned, and well-documented rationale.

2. The RVSR should review all medical opinions to ensure that the examiner identified the specific evidence reviewed and considered in forming the opinion, provided a rationale for the opinion presented, and stated his or her conclusion using one of the legally recognized phrases. (38 CFR 4.2).

**H. Presumption of service connection**

1. Sensorineural hearing loss may be service-connected as a presumptive condition under 38 CFR 3.309(a) because it is an organic disease of the nervous system.

2. Unlike hearing loss, tinnitus may not be service-connected as a presumptive condition under 38 CFR 3.309(a) because it is a subjective symptom rather than an organic disease of the nervous system.

3. An opinion for the purposes of presumptive service connection for hearing loss should follow the same format as described above under opinions and be based on all pertinent evidence of record.

Example: A veteran claims and has neurosensory hearing loss that was diagnosed 9 months after service. He had normal hearing at discharge examination. He suffered injuries, including head trauma, in a motorcycle accident 6 months after discharge. Since he did not have hearing loss diagnosed in service but had it in the presumptive period and also had a possible intervening cause during the presumptive period, a medical opinion would be needed to determine whether the sensorineural hearing loss is related to an event, injury, or disease in service or if it is due to the post-service trauma. In this case, opinions might be required from both an audiologist and a general medical examiner.

**I. Rating Guidelines**

1.      Evaluation of hearing loss and tinnitus: Hearing impairment is evaluated according to the guidelines provided in 38 CFR 4.85 and 4.86. The Diagnostic Code (DC) assigned for hearing impairment is 6100 and for tinnitus the DC is 6260. The notes following DC 6260 apply when rating tinnitus.

2.      Service connection for hearing loss and need for opinion if audiograms are not in service records: Service connection for hearing loss can be granted if it is incurred in, aggravated by, or, for sensorineural hearing loss, presumptive to military service. Ideally, in establishing service connection, an entrance and discharge audiogram will be in the service treatment records. However, many veterans do not have both, and the Department of Defense has not always used audiometry. In these claims, an opinion from an audiologist is required before a determination about service connection can be made.

3.      Hensley decision: Service connection for hearing loss may be established in some cases even if hearing loss first met the requirements of 3.385 *after* service *(Hensley v. Brown,* 5 Vet.App. 155, 159 (1993)).

In Hensley, the Court stated that when audiometric test results at a veteran's separation from service do not meet the regulatory requirements for establishing a "disability" at that time, he or she may nevertheless establish service connection for a current hearing disability by submitting evidence that the current disability is causally related to service.

Therefore, a claim for current hearing loss may require an examination, even if there was a change in the level of hearing at the time of discharge compared to entrance to service, but it did not reach the level of a disability per 38 CFR 3.385. An audiologist's opinion may be required to determine if a significant change in hearing thresholds occurred during military service.

Example #1: A veteran had the following audiometric examinations on entrance and separation.

         Right ear

500      1000   2000    3000    4000    (Hz)   Date

10       20   15   25    20   (dB)   07/71 (entrance)

10      20    15    35   35   (dB)   06/75 (separation)

         Left ear

500    1000    2000    3000    4000    (Hz)    Date

10     20    20    25    30    (dB)    07/71 (entrance)

10       25    20    35    35    (dB)    06/75 (separation)

The veteran did not claim hearing loss and did not meet the criteria for hearing loss as a disability per 38 CFR 3.385 at the time of separation. Audiometry does, however, show a decrease in hearing at the 3000 and 4000 Hz levels in both ears at separation compared to entrance. In 1985, the veteran had a private audiologic examination and received a diagnosis of bilateral sensorineural hearing loss manifested by levels of 60 dB on audiometry at the 3000 Hz level and 70 dB at the 4000 Hz level in both ears. All other threshold levels were less than 30 dB. The audiologist stated that the hearing loss was most likely due to noise exposure. The veteran was in combat in Vietnam, where he served for 2 years. He said that his hearing had progressively worsened after 1980, and he claimed service connection for hearing loss in 1995.

An examination and opinion by a VA audiologist is needed in this case to establish the current level of hearing loss, to assess the significance of the changes in level of audiometric testing in service in both ears (for example, the 10 dB drop at 3000 Hz and the 15 dB drop at 4000 Hz in the right ear and the 10 dB drop at 3000 Hz and the 5 dB drop at 4000 Hz in the left ear) and to provide an opinion about the relationship of current bilateral hearing impairment to service noise exposure or t  other causes, such as post-service occupational or recreational noise exposure.

*Pertinent points from the Hensley decision:* When audiometric test results at a veteran's separation from service do not meet the regulatory requirements for establishing a 'disability' at that time, he or she may nevertheless establish service connection for a current hearing disability by submitting evidence that the current disability is causally related to service. The absence of a "ratable increase" during active duty may not determine service connection.

Example #2: The veteran entered service in 2004, served in Iraq from 2005 to 2007 as a cook, and was discharged in 2008. He had the following audiometry results:

         Right ear

500    1000    2000    3000    4000    (Hz)    Date

10       20    20    50    50    (dB)    04/04 (entrance)

15       20    20    60    65    (dB)    09/08 (separation)

         Left ear

500    1000    2000    3000    4000    (Hz)   Date

10       20    20    25    30    (dB) 04/04 (entrance)

15       20    20    35    35    (dB) 09/08 (separation)

The veteran was diagnosed with mild sensorineural hearing loss in his right ear at entrance to service. The threshold in the right ear was worse by 10 dB at 3000 and by 15 dB at 4000 at separation. The issue then becomes, was the hearing loss aggravated in service or should the increase in hearing loss be attributed to normal progress of the condition? A second issue may arise regarding the left ear if, in the future, a sensorineural hearing loss is diagnosed, since there was some worsening at the 3000 and 4000 Hz levels at separation, but the decrease in hearing did not reach the level of a disability under 3.385. See Pertinent points from the Hensley decision, above.

In Hensley, the Court noted that clear and unmistakable evidence is required to rebut a finding of service aggravation when there is an increase in disability during service (38 CFR 3.306(b)) and stated that independent medical evidence or a quote from recognized medical treatises is needed to provide adequate support for a medical conclusion that worsening is attributed to natural progress.

Since there is no regulation that defines when a change in hearing is significant or constitutes an increase in disability, if there is a change in pre-existing hearing loss between entrance and separation, an audiologic opinion will be required. The audiologist should be asked to assess the significance of any changes in level of hearing in service, and to provide an opinion as to whether they represent normal variability in audiometric measurement, normal progression of hearing loss,  or are indicative of worsening due to the circumstances of service.

4. Examinations before 12/18/1987: Before assigning an evaluation, comparison to rating tables from prior years may be required when examinations are dated prior to December 18, 1987 (M21-1MR Part III Subpart iv Chapter 4 Section B.12.c.&d.). Generally, reexaminations are not required.

**J. Audiologic Examinations**

The following points bear emphasis, and the examination worksheet and template will be revised to assure that they are consistent with the procedures outlined below and that examiners are aware of the standard requirements. They are provided to you for informational purposes.

Examination for hearing loss includes audiometry and other audiological tests, and both air and bone conduction thresholds are examined. However, for rating purposes, the results of audiometric measurement of air conduction puretone thresholds are used to evaluate all types of hearing loss, in addition to speech recognition testing.

Audiology exams must be performed by state-licensed audiologists (38 CFR 4.85).

1.      Puretone thresholds: The examination report should include measurements and recordings in decibels of pure tone thresholds (air conduction) at 500, 1000, 2000, 3000, and 4000 Hertz, with the pure tone average based on the last four measurements. The 6000 and 8000 Hz levels are also measured during VA examinations but are not recorded on the examination report because they are not used for rating.

2.      Speech recognition score: A Speech Recognition Score based on the Maryland CNC list must also be reported. Examiners should pause when necessary during speech discrimination tests, in order to give veterans sufficient time to respond. This is important to ensure that the test results are based on actual hearing loss rather than on the effects of other problems that might slow a veteran's response. There are a variety of problems that might require pausing, for example*,* the presence of cognitive impairment. The decision to use pausing and the length of pausing are based on the examiner's judgment.

3. Need for a modified performance-intensity function: The normal speech recognition performance is 94% or better for a full (50 word) list. If speech recognition is worse than 94% after presentation of a full list, then a modified performance-intensity functionmust be obtained to determine best performance (see page 9 of Handbook of Standard Procedures and Best Practice for Audio Compensation and Pension Exams).

4. More testing requirements: Audiological testing should be conducted without hearing aids and both ears should be tested whether or not service connection or increased evaluation for hearing loss is claimed in both ears.

5. Examination for Tinnitus: If the veteran claims tinnitus or has a complaint of tinnitus during the examination, the examiner should report onset and whether the tinnitus is constant or intermittent. Tinnitus must be addressed if it is claimed, whether or not it is a current complaint. If tinnitus is a current complaint, it must be addressed whether or not it is claimed. If there is a claim and no current complaint, the audiologist must state when the veteran last experienced tinnitus.

6. Relationship of tinnitus to hearing loss:

a. If there is a claim and/or current complaint of tinnitus, the audiologist must indicate whether tinnitus is as likely as not a symptom associated with hearing loss, if hearing loss is present.

b. The audiologist may als  offer an opinion on the relationship of tinnitus to an event, injury, or disease in service if it is within the scope of the audiologist's practice.

7. Notch due to noise-induced hearing loss. The IOM report on Noise and Military Service pointed out the presence of a notch (of decreased hearing) that may be seen on audiograms generally at frequencies of 3000, 4000, or 6000 Hz with a return toward normal hearing at 8000 Hz that may be indicative of noise-induced hearing loss. This notch, while not pathognomonic (meaning beyond any doubt) of noise-induced hearing loss, may in some cases aid an audiologist in determining the etiology of hearing loss. The notch often becomes obscured with increasing age, as presbycusis (age-related hearing loss) ensues.

While the frequencies of 6000 and 8000 Hz are always measured during VA audiology exams, they are not reported on examination reports because 38 CFR 3.385 (see above) does not take those higher frequencies into account in determining when hearing loss is a disability, nor are they used in calculating the average puretone threshold. The presence or absence of a notch therefore is not directly applicable to rating procedures, and this discussion is intended only for informational purposes.

8. Instructions to examiners for providing an opinion are outlined in the *Handbook of Standard Procedures and Best Practices for Audiology C&P Examinations (pages 23-25).* Examiners are asked to include a statement of the issue(s), a statement of their own credentials, a review of the evidence, a statement of findings including a well-reasoned rationale related to the cited evidence, and a conclusion in legally acceptable terms, as listed above under F6.

**K.    Potentially confusing terms**

1.      Acoustic trauma: Strictly speaking, acoustic trauma means sudden hearing loss (and possibly tinnitus) resulting from a single short-term exposure to an extremely loud noise, such as an explosion or gunshot. This is in contrast to noise-induced hearing loss, which results from long-term exposure (such as working in a noisy environment or listening to loud music for years).

However, you may also see acoustic trauma at times defined more broadly as including hearing loss resulting from either sudden single or long-term loud noise exposure. VA defines acoustic trauma in the stricter sense of a short-term severe episode of loud noise exposure that causes damage to the inner ear.

2. Clinically normal hearing: This means the puretone thresholds between frequencies of 250 and 8000 Hz are 0 to 25 dB. This definition has no rating implications but you may see it in an examination report.

**L. References**

1. www.medlineplus.gov

2. M21-1MR (http://vbaw.vba.va.gov/bl/21/M21-1MR/m21-1mr\_main.htm)

3. Handbook of Standard Procedures and Best Practices for Audio

 Compensation and Pension Exams (2004) (www.nmcphc.med.navy.mil/downloads/occmed/toolbox/VA%20Audiology%20Best%20Practices%20&%20Procedures.pdf**)**

4. Veterans Health Initiative Study Guide on Hearing Impairment(www.publichealth.va.gov/docs/vhi/hearing\_impairment.pdf)

5. Noise and Military Service: Implications of Hearing Loss and Tinnitus

 (Institute of Medicine, National Academy of Sciences, 2005) (http://www.nap.edu/catalog.php?record\_id=11443)

6. http://hcd2.bupa.co.uk/fact\_sheets/Mosby factsheets/Hearing\_Loss.html - This site has a very clear narrated animation of the hearing process.

7. http://www.nidcd.nih.gov/health/hearing