



# Naval Safety Center

## LESSONS LEARNED



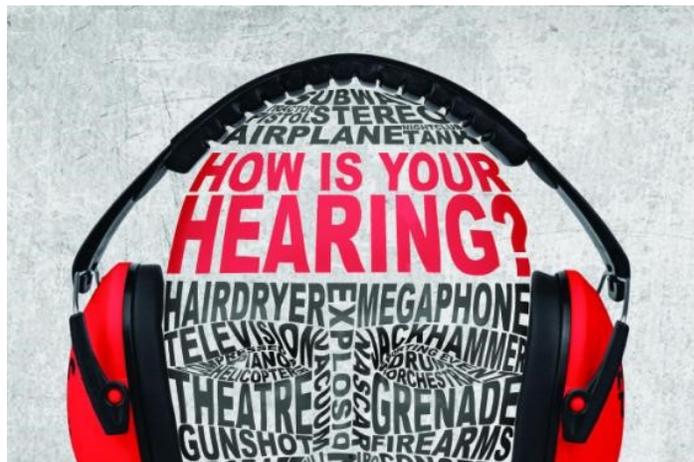
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### *Invisible Injuries - Hearing Loss*

*“Help us, help you - Reporting and Analysis”*

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Hearing plays a vital role in the performance of one’s duty as a Sailor or Marine. Noise-induced hearing loss is a significant impairment in the Navy and Marine Corps which negatively affects performance, situational awareness, mission effectiveness, readiness, safety, and survivability. Navy and Marine personnel are constantly exposed to high levels of noise, and as a result, noise induced hearing loss and/or tinnitus (buzzing or ringing in the ears) remain the second most prevalent service-connected disability. Chronic exposure to loud or continuous noise wears down hearing and leads to long-term hearing impairment. Since 2004, the VA has paid out more than \$180 million in disability payments as a result of hearing loss and tinnitus. Moreover, 26% of male and 13% of female veterans serving in Iraq and Afghanistan suffered hearing loss and/or tinnitus. If you suffer from permanent hearing loss, it can lead to more than just a lifelong nuisance. It can negatively affect all facets of life and has brought frustration, depression, and a feeling of isolation to many veterans.



Much of the dangerous noise experienced by Navy and Marine personnel exceeds the limits of double hearing protection. Our service members are routinely exposed to unavoidable high levels of noise from jet engines, large vehicular engines, engine rooms, and gunfire. The use of hearing protection devices and follow-up audiology tests has become the mainstay of preventing noise-induced hearing loss.

Exposure to intense sound can cause hearing thresholds to become elevated temporarily or permanently. Any negative change in hearing capacity of 10 decibels or more across a range of frequency levels is referred to as a significant threshold shift (STS). Reversible hearing loss is referred to as a temporary threshold shift (TTS). Depending on the duration of exposure, recovery from a TTS can occur over a period of minutes, hours, or days. If a patient does not recover from a TTS, then the hearing loss is classified as a permanent threshold shift (PTS). According to OPNAV instruction 5102.1D, if a Sailor or Marine has a permanent threshold shift as a result of work-related or on-duty noise exposure, the command must complete a safety investigation and submit a Safety Investigation Report (SIREP) using the Web Enabled Safety System (WESS), or the eventual replacement, the Risk Management Information system (RMI). That individual’s hearing loss should only be reported once, unless an additional reportable loss of hearing occurs later. When a reportable hearing loss occurs from an instantaneous event (e.g., acoustic trauma from a one-time blast or over-pressure) the hearing loss must be reported as an injury.

## *Invisible Injuries - Hearing Loss*

To assist with collecting accurate data to track and prevent noise induced hearing loss, Safety and Occupational Health (SOH) personnel and command safety investigators must be specific when submitting WESS (or RMI) SIREPs. The majority of reporting problems come from SOH professionals being unspecific or vague in the mishap narrative. For instance:

**“Reportable Significant Threshold Shift (STS) for active duty service member received on 28AUG18 from Sewell’s Point Branch Clinic.”**

This narrative lacks key information necessary to properly assess the mishap and analyze the causes for trends. The Naval Safety Center strives to construct each mishap narrative with a full explanation of how the mishap occurred. As a rule of thumb, ensure that the report narrative addresses the “5-Ws” in WESS, ESAMS, or the eventual replacement, RMI. The 5-Ws include: (1) Who was involved? (2) What happened? (3) Where did it take place? (4) When did it take place? and (5) Why did that happen? The reporting command should fully answer those five questions when submitting a report. The above narrative could be more completely entered as follows:

**“Reportable STS for active duty service member received on 28AUG18 from Sewell’s Point Branch Clinic. SVM has routinely worked in caustic noise level engine rooms on naval ships throughout his thirteen-year career as a Gas Turbine Mechanic. SVM has used personal protective equipment properly throughout career.”**

Even the best hearing protection equipment is ineffective if not used or not properly worn. Prevention is still the primary treatment for this preventable injury, and Sailors and Marines must be educated. This education only begins with initial training on the use of hearing protection devices. It must continue via supervision, enforcement, and involved leadership.



### **Lessons Learned / Best Practices**

1. A permanent threshold shift (PTS) in hearing requires a safety investigation and report IAW OPNAVINST 5102.1D.
2. Tell the whole story using the 5-Ws rule guideline. More information helps provide the data required to better protect others from the same hazards.
3. Prevention is better than reporting! Use your hearing PPE. Leaders, be involved and ensure your troops are protecting themselves properly.