

Bone conduction (BC) sensitivity for sound field stimulation gives an estimate of the maximal attenuation achievable by ordinary hearing protection devices. Above this limit, BC transmission is dominant. The BC sensitivity was estimated using three methods: Real Ear Attenuation at Threshold, Microphone in Real Ear, and by measuring the vibrations of the skull bone with an accelerometer. For frequencies below 700 Hz the BC sensitivity estimate was 40-60 dB and at higher frequencies it was 45-55 dB.

15. Dual Wearing of Noise Dosimeters in Agricultural Workers

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The exposure to excessive sound levels from farm equipment places agricultural workers at an increased risk for noise-induced hearing loss. Farm workers typically present with an asymmetrical high-frequency noise-induced hearing loss in combination with presbycusis. The present study investigated the hypothesis that there is a differential noise exposure between the right and left ears of farmers as a consequence of farm equipment design and operator head position. Simultaneous noise dosimetry samples were obtained from each shoulder of the farm worker while operating combines or tractors.

16. Wake up Call for Audiologists Regarding Infrasonics and Very Low Frequency Noise: A Case Report

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This presentation is about a middle-aged white female who claims that since a multibillion dollar oil conglomerate built a natural gas compressor station approximately .5 miles away from her home, she has suffered from multiple permanent psychological and physiological problems. She claims these problems are caused by the low frequency and infrasonic sounds emitted by the compressor station. This presentation will highlight the key elements audiologists must know to handle cases such as this one.

17. Risk Patterns and Shooting Habits of Recreational Firearms

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While efforts to reduce the occurrence of occupational noise exposure are well recognized, recreational noise exposure has been given little attention. It is known that the recreational use of firearms is one of the leading causes of noise induced hearing loss (NIHL), however little is known about the shooting habits and associated risk patterns that may significantly increase the risk of NIHL secondary to firearm noise exposure. This study was conducted to acquire information regarding the risk patterns and shooting habits of recreational firearm users. Subject age, occupation, exposure to occupational noise, use of hearing

protective devices (HPDs), type of firearm used, number of unprotected shots fired per year, and self perception of hearing sensitivity and tinnitus were included as survey items. The results of this study suggest that many individuals who engage in the recreational use of firearms are at a high risk for NIHL secondary to firearm noise exposure during target practice and hunting activities and that more education regarding the risk firearm noise exposure is needed.

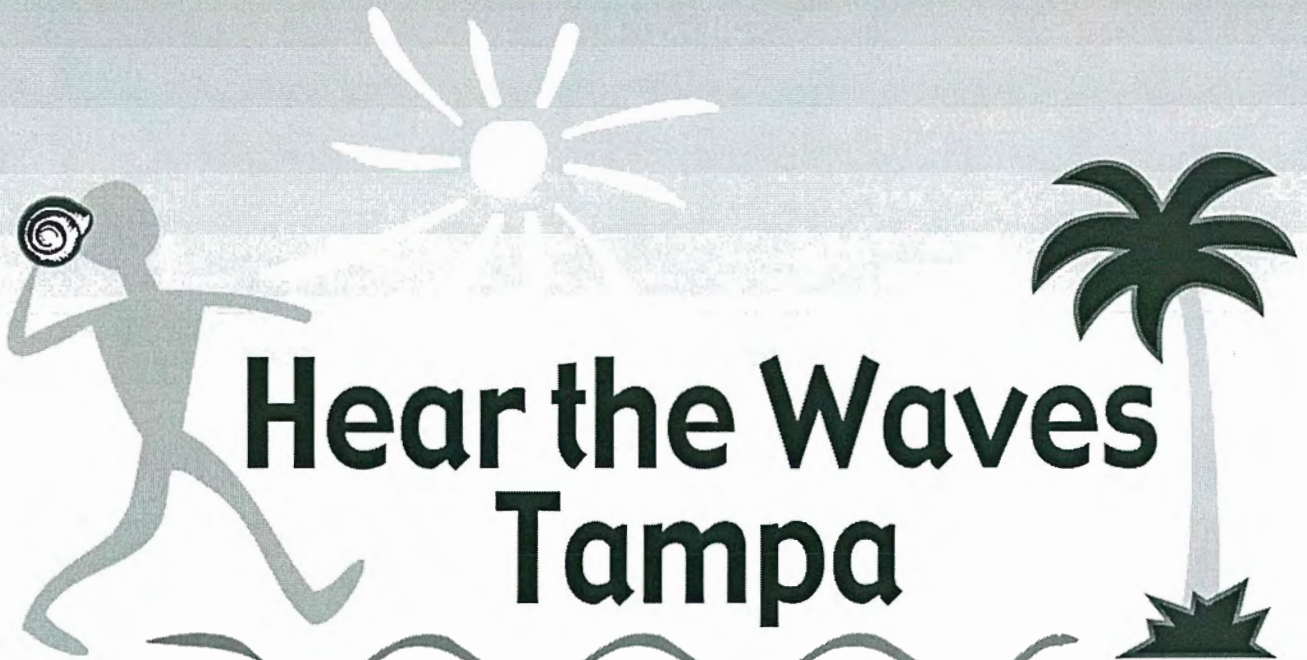
18. Headset Noise Experienced by Medical Transcriptionists

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NIOSH received requests from union officials to conduct health hazard evaluations at hospitals in California involving medical transcriptionists who use a telephone dictation system and who were concerned about excessive noise from the telephone headset. NIOSH and OSHA investigators visited the hospitals and measured the noise levels through the transcriptionists' headsets with an acoustic mannequin and the ambient noise levels in their offices. Employees were interviewed by a NIOSH investigator to document their concerns about the dictation system and any symptoms they felt were the result of their work. A similar dictation system was evaluated by NIOSH using the KEMAR acoustic mannequin and actual medical dictations chosen by the transcriptionists and identified as problematic. The NIOSH investigators determined that a potential for excessive noise exposure exists with the dictation equipment if the volume control is left in the maximum position. If the volume control is placed at the middle position or lower, the noise exposures through the headsets are at a safe level for an 8-hour work shift. Recommendations were offered to the employees and management at the hospitals to maintain the noise levels from the headsets at a safe level and to improve the clarity of medical dictations.

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