

Hearing Status of Rubber Factory Workers

Maryam Emadi¹

Received: 14 May 2012

Accepted: 15 May 2012

Available online: 26 May 2013

1. MSc of Audiology, Hamadan University of Medical Sciences, Hamadan, Iran

The effects of noise pollution as a gift of technology progress is known to some extent and the necessity of dealing with it has been increased [1]. In this regard, the nature of sound and its complications should be well recognized to be controlled by a precise program. The present evaluation is paid to the implementation of hearing protection programs in rubber factory for this purpose, sound meter and noise evaluation has been done in the different parts of the factory and then several workers have been chosen by random. Then parts that had extra ordinary noise identified. Two hundred twelve workers with mean age 42 year have been selected randomly from different extra ordinary noisy sectors of the plant. They were examined by otoscopy and pure tone audiometry. The results showed that a significant percentage of workers (63%), have hearing problems that 16% have mild hearing loss, 43% have moderate hearing loss 4% have sever hearing loss, and 59% have tinnitus. There were limited ones who use hearing protection device even in extra ordinary noisy places (34.7%). From these 10.9% constantly and 14.76% partially used hearing conservation. The percentage that didn't use hearing conservation was 9.4. It is noticeable that in parts with high percentage of hearing loss and tinnitus, workers less used hearing conservation. As mentioned in results significant percentage of workers had hearing loss and tinnitus. Investigation in other industrial centers has not been conducted under the same condition, so statistical

results are not comparable. There were records that show hearing loss due to exposure to high levels of noise [2, 3]. Regarding to most workers who had hearing loss, suffering from tinnitus, it seems that noise was effective to produce tinnitus. This study reveals that a few workers used hearing conservation. Their reasons for didn't use hearing conservation were excessive sweat, cannot hearing conservation of coworkers, allergy and infection. Use of hearing conservation is an effective manner to reduce effect of noise on hearing system. For better use of hearing conservation some factors like comfortable for user, air pollution, degree of heat and moisture shall be considered.

Corresponding author: m.emadi@umsha.ac.ir

© 2014 Zahedan University of Medical Sciences. All rights reserved

References

1. Katz J, Medwetsky L, Burkard R, editors. Handbook of clinical audiology. 6th ed. Philadelphia: Lippincott Williams & Wilkins; 2011: 678-699.
2. Mahendra Prashanth KV, Venugopalachar S. The possible influence of noise frequency components on the health of exposed industrial workers: A review. Noise Health 2011; 13(50): 16-25.
3. Abbasi AA. [Industrial noise pollution and its impacts in textile based cottage industries Tando Adam] [dissertation]. Jamshoro: Mehran University of Engineering and Technology; 2008.