TINNITUS DUE TO COMPLEX ENVIRONMENTAL EXPOSURES

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Abstract
This report deals with changes in tinnitus ratings given by 192 and 80 subjects during two separate laboratory experiments. Both experiments were based on factorial experimental design, and during both studies dry bulb temperature inside the exposure chamber was kept at 35°C. During the first experiment subjects were exposed to noise, whole body vertical vibration, mentally and physically loading work and the combinations of the factors involved. During the second study 40 smokers and 40 non-smokers were exposed to noise and whole body vertical vibration at two different illumination levels. During the study smokers were allowed to smoke five cigarettes. The subjects rated their tinnitus sensations through a five point scale four times during the first experiment and twice during the second one. The results showed that tinnitus ratings changed according to the combinations the subjects were exposed to. Noise, vibration and physically loading work seemed to influence on the tinnitus ratings most markedly. All in all, the longer the exposure time the more intense the tinnitus was. During the first experiment tinnitus was most intense when middle aged subjects were simultaneously exposed to noise of 90 dBA, whole body vibration and physically light selfpaced work. During the second experiment tinnitus was rated most intense when non-smokers had been exposed to 90 dBA noise in total darkness.

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