



Application of electrogastrogram in the researches on whole body vibration

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Abstract

AIM: Mechanical vibration is a kind of mechanical environment being widespread in modern manufacture and having obvious influence on human body. It not only influences comfort and work efficiency of people, but also endangers personal health and safety, even influences overall property of man machine system. This text described the effects of low frequency vibration and ultra low frequency vibration of human body with electrogastrogram.

METHODS: The subjects were 9 workers and 10 university students.

The test device was the electro hydraulic vibrator with 0.001-200 Hz frequency range and 100 mm maximum amplitude.

RESULTS: The electrogastrogram changes of human body exposed to 8-20 Hz low frequency vibration were coordinated with the subjective feeling. In the 0.25-1 Hz ultra low frequency range, the frequency and amplitude of the electrogastrogram during vibration had evident changes comparing with that of pre vibration, but the divergence was related with pre vibration function condition of subjects.

CONCLUSION: The electrogastrogram can be regarded as an objective index of human response to mechanical vibration. It provides scientific basis to evaluate objectively the effects of whole body vibration on people.

Key words: Electrogastrogram; Researches; Whole body vibration

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