Whole body vibration exposure and its effects on heavy earthmoving machinery (HEMM) operators of opencast mines – a review

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Abstract: Operators of opencast heavy earthmoving machinery (HEMM), during their 8-hour shift duration, are regularly succumbed to the high level of whole body vibration (WBV) amplitudes. Due to long and continuous working in the field, the operators of HEMM may yield to adverse health effects and results in hazardous conditions if the magnitudes repeatedly exceed the permissible limits. Based on extensive literature review, the authors of the paper put forward the recognized harmful adverse health effect of short and longterm WBV exposure of HEMM operators in surface mining and also with the same view with the findings of various researchers in this field and feels that for the safety of operators, long-term understanding of WBV should be carried out instead of short term vibration monitoring.

Keywords: Whole body vibration (WBV), heavy earthmoving machinery (HEMM), low back pain (LBP), health guidance caution zone (HGCZ), root mean square (RMS)

References


