

Cardinale, M. and Pope, M.H. The effects of whole body vibration on humans: dangerous or advantageous? *Acta Physiol Hung* 2003; **90**(3):195-206.

The effects of whole body vibration (WBV) have been studied extensively in occupational medicine. In particular, it has been shown that when the body undergoes chronically to whole body vibrations spinal degeneration is likely to be one of the deleterious outcomes. Low back pain has been shown to be the leading major cause of industrial disability in the population under the age of 45 years and has been linked to whole body vibration exposure encountered in some industrial settings. Whole body vibration has been recently purposed as an exercise intervention suggesting its effectiveness in increasing force-generating capacity in lower limbs and low back. It has also been reported to be an effective non-pharmacological intervention for patients with low back pain. Relatively short exposure to whole body vibration has been also shown to increase the serum levels of testosterone and growth hormone. The combined effects on the neuromuscular system and endocrine system seem to suggest its effectiveness as a therapeutic approach for sarcopenia and possibly osteoporosis. Due to the danger of long-term exposure to whole body vibration, it is important to develop safe exercise protocols in order to determine exercise programs for different populations.