



Anti-Vibration Gloves

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The purpose behind anti-vibration gloves is to decrease vibration being transmitted from vibrating tools to one's hands.

OHCOW has further investigated this issue by completing a review of the literature regarding Hand/Arm Vibration Syndrome and the use of anti-vibration gloves. Studies show that the effect of anti-vibration gloves is minimal. A study by Reynolds et al. (1996) tested two models of gloves. Viscoelastic anti-vibration gloves and air-bladder anti-vibration gloves were compared. The air-bladder model of anti-vibration gloves seemed to be most effective when utilizing vibrating tools. This model decreased medium and high frequencies of vibration and was more effective than the viscoelastic model. Moreover, Jetzer et al. (2002; cited in Dias et al. 2005) illustrated that workers strictly using the anti-vibration gloves demonstrated a 17.39% improvement in HAVS symptoms while workers who had both changed jobs and used anti-vibration gloves demonstrated a 28.57% improvement in HAVS symptoms. Jack (2005) illustrated that bare hands are most effective when decreasing vibration. The study showed that anti-vibration gloves were found to decrease the number of repetitive strain injuries (RSI) and can be beneficial in keeping the hands warm. He concluded that air-bladder anti-vibration gloves are acceptable for use. The effectiveness of the air-bladder anti-vibration gloves has deemed them acceptable for use. In conclusion studies have shown that anti-vibration gloves are not as efficient as originally believed. If you choose to purchase gloves, air-bladder (Figure 1) is the better choice and is recommended on a trial basis to determine if the worker(s) feel any improvements with the use of the anti-vibration gloves.

There are other prevention strategies that could be in place to reduce the transmission of vibration. These strategies involve a reduction of vibration exposure time. For example: avoiding vibrating tools all together, performing shorter periods of work with vibrating equipment and allowing for breaks. Training and education on the risk factors associated with HAVS and the use of vibrating tools is also strongly recommended. There are tools that dampen vibration available on the market. When buying new tools, it would be beneficial to purchase these types of tools. It is also important to note that workers need to maintain neutral wrist postures during work tasks. This helps to avoid additional stresses on the body during the use of vibrating tools.



Figure 1: Full-Finger Air Bladder Anti-Vibration Gloves.

References

- Jack, R. (2005) *Work* 25, 197-203.
- Jetzer et al. (2003) IOHA Pilanesberg: Paper B1-4.
- Reynolds et al. (1996) *Centr. Eur J. Publ Hlth*, No 2, 140-144.