

Introduction

Whole Body Vibration (WBV) is an often-misunderstood concept. Rather than relating to exposure to vehicle engine vibrations, as many believe, it actually relates to the vertical up and down movements, caused by driving over rough terrain. It might better be described as “jiggling up-and-down”.

How does WBV affect an employee’s health?

Exposure to these rapid up and down accelerations at higher levels may cause joint problems including neck and back pain, as those joints act as shock absorbers.

At lower intensities, these oscillations may aggravate existing musculoskeletal conditions.

We should remember that there are many causes of back pain, other than WBV and these should also be adequately controlled.

The kinds of work that involve exposure to these movements also, often includes lifting and manual handling of heavy or awkward loads – these risks may be higher than that posed by exposure to WBV and should be tackled first.

When does WBV present a Risk?

The Control of Vibration at Work Regulations 2005 (the Vibration Regulations) set an exposure action value (EAV) and an exposure limit value (ELV).

The EAV is $0.5 \text{ m/s}^2 \text{ A(8)}$ and is the amount of daily exposure to WBV above which you are required to take action to reduce exposure. The ELV is $1.15 \text{ m/s}^2 \text{ A(8)}$ and should not be exceeded.

Your employer is obliged to assess your exposure and take certain action in the case of either of these values being breached.

However, the concept can be complex, and workers often find it difficult to understand if they are likely to receive high exposures or not.

As a simple guide, employees that drive vehicles over rough terrain, such as agricultural and construction workers are likely to be exposed above the action value. This does not mean that other types of job are not a risk and, for example, someone driving a fork lift truck over broken or poorly maintained flooring may be equally subject to such values.

This sort of work requires adequate assessment and control of the risks. Where values are likely to be high, your employer must take action to reduce exposure to safer levels.

What is the likelihood that my work is risky?

Low risk: When driving across unmade-up land, or poorly maintained surfaces, there is little work that falls into this category.

Medium risk: Combining, hedging, ditching, self-propelled foragers & duties requiring use of power take-offs.

High Risk: Baling, drilling foraging, spraying, ploughing, harrowing, primary cultivation (up to $5\frac{1}{2}$ hours), mowing (up to 8 hours), tedding (up to 5 hours), transport using unsuspended tractors (up to $4\frac{1}{2}$ hours), transport using tractors with suspended cab or chassis (up to 7 hours). ATV (all-terrain vehicle/quad bike, up to $5\frac{1}{2}$ hours).

Very high risk: Primary cultivation (over $5\frac{1}{2}$ hours), mowing (over 8 hours), tedding (over 5 hours), transport using unsuspended tractors (over $4\frac{1}{2}$ hours), transport using tractors with suspended cab or chassis (over 7 hours), ATV (all-terrain vehicle/quad bike) (over $5\frac{1}{2}$ hours).

How can I reduce my exposure?

- Maintain vehicle driving areas in good condition.
- Ask for vibration information when buying new machinery – make this part of your purchase decision.
- Select suitable machinery for the task.
- Ensure machinery is properly lubricated and maintained.
- Ensure that drivers understand the risks of WBV and how to manage their own exposure.
- Make sure that correct seating is specified and that operators understand how to correctly adjust it.
- Reduce or limit speed both over uneven ground and on the highway.

Further Information

Your employer has certain legal obligations that they must fulfill if they expose employees to hand transmitted vibration.

If you wish to know more, please visit the HSE's website:

<https://www.hse.gov.uk/vibration/wbv/index.htm>

Information in this leaflet has been taken partly from HSE document AID20, which can be found here:

<https://www.hse.gov.uk/pubns/ais20.pdf>

A copy of this information leaflet can be downloaded from:

<https://mohs.co.uk/>

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