



March 2021

Whole body vibration – information for workers

Guidance for workers who drive or operate machines.

Whole body vibration (WBV) occurs when vibration passes through your body from a surface you are sitting or standing on.

When could you be exposed to WBV?

You could be exposed to WBV if you regularly drive, ride in, or operate machines that travel over rough surfaces or have a vibrating function. This includes off-road vehicles like tractors, and mobile machinery like earth movers and rollers.

You could be exposed to WBV when using machinery like forklifts, or when riding on machines like trains or on maritime vessels.

You could also be exposed by standing on a platform attached to a machine that vibrates (for example, a concrete crushing plant).

What are the signs of potentially being exposed to excessive WBV?

Long term excessive WBV could cause you harm.

Lower back, neck or shoulder pain or other discomfort could be signs that you are being exposed to excessive WBV. However, there can be other work and non-work factors that could contribute to these symptoms.

What can cause back pain or other signs of discomfort?

Causes of back pain and discomfort include:

- incorrect seating height or position
- poor posture
- sitting for long periods
- repeated twisting, leaning, bending or stretching to operate the machine, and
- excessive WBV exposure.

What can you do?

Your business must ensure, so far as is reasonably practicable, the health and safety of workers, and that other persons are not put at risk by its work.

Your business must manage work risks to your health and safety. If you are at risk from excessive WBV, control measures should be in place to eliminate or minimise your exposure to WBV. As described below, there are things that you can do to help.

Your business must engage with you and your representatives when identifying and assessing risks from WBV, and when making decisions about the ways to eliminate or minimise those risks and monitoring procedures.

Use the right machine for the job.

Can it operate in the conditions (for example, the weather conditions, ground conditions, terrain) you need to work in?

Know your machine.

Find out what the vibration emission levels of the machine are, and what you can do reduce your exposure to WBV.

Use the machine properly.

Before you first use the machine ask for training on how to safely use it or read the manufacturer's instructions.

Make sure you are seated comfortably:

- adjust your seat so that it supports your lower back, and you can see and operate the controls without stretching or twisting
- adjust the driver weight setting on your suspension seat (if you have this), to minimise vibration and to avoid the seat suspension 'bottoming out' when travelling over rough ground
- do not slump in your seat or constantly lean forward or sideways
- do not drive with your back twisted.

To avoid bumping and jolting:

- drive slowly
- steer, accelerate, brake and shift gears smoothly
- operate attachments smoothly (for example, excavator buckets).

Do not lift heavy things or bend in awkward positions directly after you have been driving or operating a machine for a while.

Before you use it, check the machine is working properly and has been well-maintained.

Check that the machine is in good working condition before you start using it. For example, check that the machine has been recently maintained, has tyres suitable for the terrain and with the correct tyre pressure.

Tell your manager if you have any concerns or notice any faults with the machine.

Plan the work to avoid driving on rough surfaces.

Where you can, choose routes to avoid rough surfaces.

Where you cannot avoid rough surfaces, drive slowly and smoothly to avoid bumping and jolting.

Limit the amount of time you spend operating the machine.

Avoid sitting in the same position for long periods of time. Take regular breaks.

If you work with a team of people trained to operate the machine, it is a great idea to rotate the high-vibration jobs around the team. That way the exposure of each person is reduced.

Learn to spot the early signs of potentially being harmed by WBV.

If you experience neck, back or shoulder pain, or are concerned about your ability to drive a machine, let your manager know as soon as you can, and seek medical advice.

Take part in health monitoring programmes.

Your business may set up a health monitoring programme.

Health monitoring looks at whether your health is being harmed because of your exposure to WBV. It involves checking for lower back, neck or shoulder pain, or other signs of discomfort.

This discomfort may be caused by exposure to excessive WBV, and/or due to other work or non-work reasons.

Your business should pay for all monitoring costs.

Your business must engage with you when making decisions about monitoring procedures.

Your business must discuss the proposed monitoring with you (such as what is involved, when it will take place and how often).

The monitoring should be carried out by a health professional with sufficient knowledge, skills, training and experience.

You must give informed consent for the health monitoring: hdc.org.nz

Your business must keep any personal information collected during monitoring secure and confidential, and use it for the purposes it has been collected for: www.privacy.org.nz

For more information, see our guidance: [What to know about exposure monitoring and health monitoring – for workers](#)

Get involved when the business replaces machines or looks at how you work.

With your business, see if you can change how you work so you do not need to use vibrating machines.

If you still need to use vibrating machines, ask for low-vibration versions.

See if there are other ways to reduce WBV (for example, choosing another route).

For more information about how your business could manage health risks, see: [Whole body vibration – information for businesses](#)

ACKNOWLEDGEMENT

Health and Safety Executive (UK) guidance was used in the development of this quick guide.