



“Let’s Talk Health”

HAVS

DISCUSSION AID 

INTRODUCTION

This talk has been developed to assist the person facilitating the “Let’s talk health” week topic on HAVS. It provides pointers to get the conversation started and is not a full explanation of all health and safety requirements, related to this subject, and should not be relied upon as such.

Has anyone heard of HAVS (hand-arm vibration) syndrome?

Hand-arm vibration syndrome is caused when vibration is transmitted from work equipment into your hands and arms. HAVS develops over time and it is often too late to reverse the damage once noticed.

What causes HAVS?

Regular and frequent exposure to hand-arm vibration can lead to permanent health effects. This is most likely when contact with a vibrating tool or work process is a regular part of a person’s job. Occasional exposure is unlikely to cause ill health.

What type of equipment do you use on site that creates vibration?

Examples of vibration equipment include:

- concrete breakers
- sanders
- disc cutters
- chipping hammers
- brush cutters
- Road breakers
- concrete pokers
- grinders
- hammer drills
- chainsaws
- scabblers or needle guns
- Pedestal grinders



“Let’s Talk Health”

HAWS

DISCUSSION AID 

What are the health effects of over exposure to vibration?

It can cause hand-arm vibration syndrome (HAWS) and carpal tunnel syndrome (CTS).

Identifying signs and symptoms at an early stage is important. It will allow you, as the employer, to take action to prevent the health effects from becoming serious for your employee. The symptoms include any combination of:

- Tingling and numbness in the fingers;
- Not being able to feel things properly;
- Loss of strength in the hands;
- Fingers going white (blanching) and becoming red and painful on recovery (particularly in the cold and wet, and probably only in the tips at first).

For some people, symptoms may appear after only a few months of exposure, but for others they may take a few years. They are likely to get worse with continued exposure to vibration and may become permanent.

These effects can severely limit the jobs an affected person is able to do, as well as many family and social activities.

Carpal tunnel syndrome (CTS) is pressure on a nerve in your wrist. It causes tingling, numbness and pain in your hand and fingers. You can often treat it yourself, but it can take months to get better.



“Let’s Talk Health”

HAVS

DISCUSSION AID 

How can we reduce exposure to Hand Arm Vibration?

- Use suitable low vibration tools; i.e. use those with vibration absorbing features or designed to support weight or reduce forces;
- always use the right tool for each job (to do the job more quickly and expose you to less hand-arm vibration);
- check tools before using them to make sure they have been properly maintained and repaired to avoid increased vibration caused by faults or general wear;
- make sure cutting tools are kept sharp so that they remain efficient;
- reduce the amount of time you use a tool in one go, by doing other jobs in between;
- avoid gripping or forcing a tool or workpiece more than you have to; let the equipment do the work for you;
- store tools so that they do not have very cold handles when next used;
- encourage good blood circulation by: keeping warm and dry, e.g. wear warm waterproof clothing;
- giving up or cutting down on smoking because smoking reduces blood flow;
- massaging and exercising your fingers during work breaks;
- report any problems with your hands promptly to your employer or the person who does your health checks;
- use any control measures your employer has put in place to reduce the risk of HAVS i.e. calculation exposure rates for the equipment being used.



“Let’s Talk Health”

HAVS

DISCUSSION AID

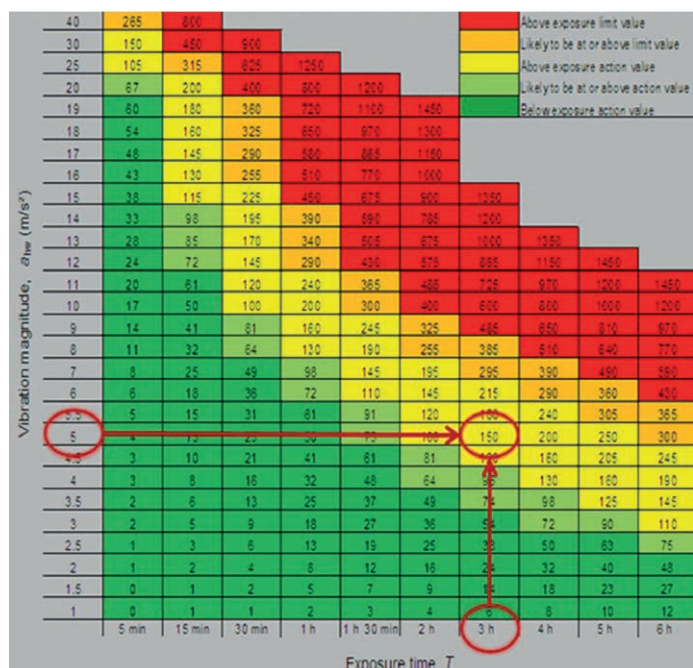
What measures can we implement to reduce the effects of Hand Arm Vibration?

The Regulations for HAVS introduce exposure action values as a guide to implementing safe working times on equipment:

Exposure action value of $2.5 \text{ m/s}^2 \text{ A}(8)$ at which level employers should introduce technical and organisational measures to reduce exposure.

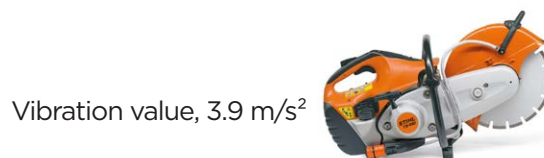
Exposure limit value of $5.0 \text{ m/s}^2 \text{ A}(8)$ which should not be exceeded.

Use graphs such as the one below to calculate exposure and limit the time on each piece of equipment.



Examples of equipment and their vibration ratings:

All information can be found on the Manufacturer's website and in the manufacturer's instructions provided with the equipment.



Vibration value, 3.9 m/s^2



Vibration level (chiselling): 8.5 m/s^2

Vibration -
Surface Grinding 6.5 m/s^2





“Let’s Talk Health”

HAWS

DISCUSSION AID

What is whole body vibration?

Vibration transmitted through the seat or feet is known as whole-body vibration or WBV.

What equipment causes whole body vibration?

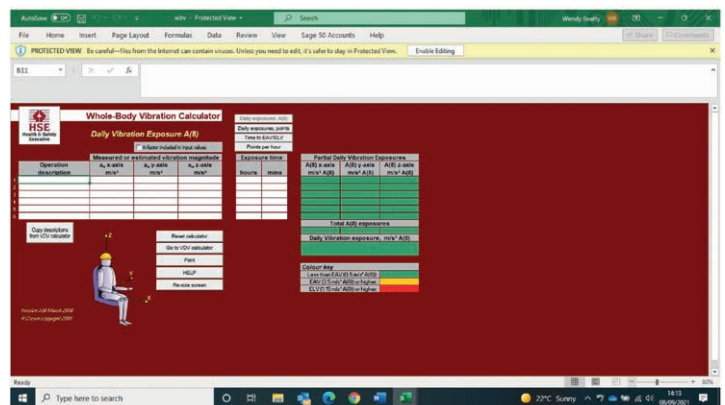
Among those most likely to experience high whole body vibration exposures are regular operators and drivers of off-road machinery.

Drivers of some mobile machines, including certain tractors, forklift trucks and quarrying or earth-moving machinery, may be exposed to Whole Body Vibration and shocks, which are associated with back pain.

Other work factors, such as posture and heavy lifting, are also known to contribute to back problems for drivers, however further study is needed into the impact of whole body vibration.

The exposure action value is the amount of daily exposure to whole-body vibration above which you are required to take action to reduce risk. It is set at a daily exposure of 0.5 m/s² A(8).

The HSE have provided a ready reckoner which can be used to assess the exposure levels if we know the vibration level of the vehicle.



The screenshot shows a Microsoft Excel spreadsheet titled 'Whole Body Vibration Calculator'. It is a 'Protected View' of a file named 'WBV Calculator.xlsx'. The spreadsheet is divided into several sections: 'Measured or calculated vibration magnitude', 'Exposure time', 'Daily vibration exposure', and 'Total daily exposure'. It includes tables for inputting vibration levels (m/s² A_{ms}), exposure times (hours), and calculated exposure levels (m/s² A(8)). There is also a 'Colour key' section at the bottom right. The spreadsheet is designed to help users assess the risk of whole body vibration exposure based on measured or calculated vibration magnitude and exposure time.

Are we missing anything? Can you suggest any other ways we can reduce the risk of HAVS or whole body vibration on our site?

Take suggestions