



Topic

VIBRATION

Ref

HSMS TBT

Audience

Site Operatives, Contractors

Presenter

GHSEA, Site Manager, Site Supervisor, Production Managers & Deputies

Subject

• What is the issue with vibration?

Excessive exposure to vibration at work could have adverse effects on health, in particular from **Hand-Arm Vibration Syndrome**, **Carpel Tunnel Syndrome** or **Raynaud's Disease**. Vehicle drivers and plant operators can also suffer from back injury due to **whole body vibration**.

Operatives on both construction sites and in manufacturing operations are exposed to vibration and could suffer the effects of vibration, if it is not managed correctly. They could suffer from back pain as a result of whole body vibration caused by the shaking or jolting of the body through the seat of a vehicle or they could suffer from health issues because of using powered hand tools or equipment that vibrate when being used.

• Hand Arm Vibration Syndrome (HAVS)

Employees who are regularly exposed to vibration equipment may suffer reduced blood circulation to the nerves and muscles. This is noted by a tingling feeling or numbness in the fingers. In more advanced cases, finger blanching can occur, this is often referred to as **vibration white finger**. **The damage is permanent and not reversible.**

• Carpel Tunnel Syndrome (CTS)

CTS is a condition that has the potential to affect any employee that uses powered hand tools or equipment that vibrates. CTS is where pressure on a nerve in the wrist causes pain and numbness in hands and fingers. Symptoms of CTS include pain, numbness, tingling or weakness in your fingers, hand or arm.

• Raynaud's Disease

Raynaud's Disease affects circulation, it causes some areas of the body, like fingers and toes, to change colour when a person is cold or stressed.

• Examples of vibrating tools

The following equipment are a potential source of tool vibration (not an exhaustive list):

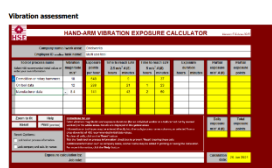
Jack Hammer
Plate compactors
Reciprocating saws
Grinders
Nail guns
Chipping hammers

Orbital sanders
Rotary hammer drills
Masonry or steel cut off saws
Chisels
Concrete pokers





Controlling Exposure to Vibration



Where there is risk of exposure to a potential source of tool vibration we must assess that risk and take action to reduce vibration exposure that produces those risks. During this assessment process we evaluate whether employees are likely to be exposed above the **EAV** and the **ELV**.

Daily exposure action value (EAV)

This is the level of daily exposure, which if exceeded requires action to reduce it. The greater the exposure level, the greater the risk and the more action we must take to reduce the risk.

The exposure limit value (ELV)

This is the maximum amount of vibration an employee may be exposed to on any single day. **We must ensure employees are NEVER exposed above the ELV**

What you must do to limit exposure



If exposure has been identified as above the EAV or ELV then task specific risk assessments must be completed to introduce control measures to reduce the risk of ill-health as a result of exposure to vibration to as low as reasonably practicable. This could include:

- Considering whether the task can be done without using vibration tools;
- Using a lower vibration tool that brings the exposure below the EAV or ELV;
- Obtain accurate vibration data by assessing the vibration of the tool when in use;
- Instigating a tool management and maintenance programme;
- Giving Vibration specific information and training to employees on health risks and the actions to take to control those risks and how they can use the tools safely;
- Carrying out Health surveillance where there is a risk to health.

Usage Monitoring



If an employee is going to use vibrating tools or machinery as part of their daily work then their usage (amount of time using the tool) must be monitored and recorded. This can be done using a daily log book that the employee must complete at the end of each shift. This must then be reviewed by the line manager to ensure exposure is within acceptable levels.

Health Surveillance



If an employee is going to use vibrating tools or machinery as part of their daily work, they must undergo initial health screening and have regular assessments with our health-monitoring provider. Initial health screening also known as a baseline assessment is carried out by the employee completing a health screening questionnaire for workers using vibration tools or equipment.

Tool Management Programme



It's important that the tools are kept in serviceable condition so that the levels of vibration don't increase. A tool management and maintenance programme should be instigated and recorded. Report any tool that is not functioning correctly immediately.

IF YOU ARE IN ANY DOUBT ABOUT VIBRATION – STOP and ASK!

