

TOOLBOX TALK

NO.5

Hand Arm Vibration



A considerable number of the tools and other equipment that are currently used in the building and construction industry have a rotary or percussive action and so can cause hand-arm vibration. This even applies to some widely used small tools such as hand drills with a hammer action. The seriousness of the situation will depend largely on how frequently and for how long vibrating tools are used although other factors contribute to the potential for ill health.

The most commonly caused ill health effect is vibration white finger, where the effect of the vibration damages the nerves and blood vessels in the fingers. The fingers become white and there is a loss of feeling that prevents smaller tools from being held or used properly. Hand-arm vibration is also known to cause other vascular, neurological and muscular damage in the hands, wrists, elbows and shoulders.

The effects of both hand-arm vibration syndrome (HAVS) and whole-body vibration syndrome (WBVS) (separate toolbox talk) can be reduced by carrying out risk assessments and the correct use of equipment.

Exposure to vibration can lead to serious and disabling injury. Many operatives do not appreciate the possible dangers of vibration. Vibration is associated with noise. The louder a noise, the more irritable it is. The greater the exposure to vibration, the more likely there is to be damage.

Exposure limit and action values – Hand-arm vibration

The daily exposure action value is 2.5 metres per second squared A(8), at which level employers should introduce technical and organisational measures to reduce exposure.

The daily exposure limit value is 5 metres per second squared A(8), which should not be exceeded.

Early Signs:

Pale Fingers Loss of sense of touch Severe pain and numbness Pins and Needles
Loss of grip Loss of dexterity Painful wrist Loss of grip strength
Loss of sense of touch

Sources of Vibration:

- Common causes of HAVS are the use of hand tools that cause vibration, such as; hammer drills, oscillating multi-tools, angle grinders, breakers etc., is the prolonged use of rotating power tools for cutting or grinding, Percussive hand tools used for chipping, hammering or drilling.

Avoiding Vibration

- Select tools that have vibration absorbing features.
- When using a tool that causes vibration check with your supervisor for how long you can use the tool. Take regular breaks.
- Adopt a comfortable position when using vibration tools. Tense muscles cause increase the effect of vibration on your body, Keep warm and dry when using vibration tools.
- If you think you have symptoms of HAVS, tell your supervisor and seek medical help.

Question: Name three tools that cause vibration?

Question: What would you do if you felt tingling in your hands after using a power tool?