

Hand arm vibration syndrome (HAVS)

Concrete, breaking, screed removals and other site activities cannot always be designed out by the design team, so the PC needs to put in place the following control methods:-

Hand arm vibration is vibration transmitted into the hands and arms from the use of hand-held powered work equipment.

Too much exposure to vibration can cause HAVS and carpal tunnel syndrome. The symptoms include;

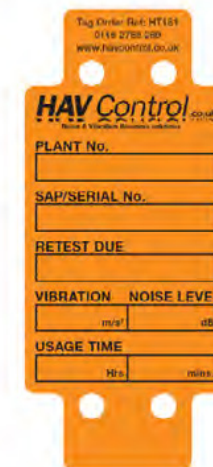
- Tingling and numbness in the fingers (which can cause sleep disturbance).
- Not being able to feel things with the tips of the fingers.
- Loss of strength in the hands (less able to pick up or hold heavy objects).
- In the cold and wet, the tips of the fingers going white then red and being painful on recovery (vibration white finger).
- Long term exposure can result in permanent disability.
- Managers and supervisors must check tool users regularly for any symptoms.
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Hand Arm Vibration Safety	
Vibration in m/s^2	Maximum Daily Usage Time in Hours (ELV)
Below 5 Low	8 Hours
5 to 10 Medium	2 Hours
Over 10 High	Assess risk

If any work is being carried out that involves excessive use of vibrating tools or plant that could contribute to the symptoms of Hand Arm Vibration, employers must;

- Identify employees at risk from HAVS.
- Make a valid estimate of their exposures, compared with the Action Value and Limit Value.
- Identify the need for immediate action if the Limit Value is exceeded.
- Consider the available and appropriate options for controlling risk.
- Produce an action plan for control and arrangements to monitor progress against the action plan.
- Make arrangements for periodic review of the assessment.
- Reduce exposure to a minimum by using alternative tools or processes to avoid exposure.
- Provide information and training on the risks and their control.
- Provide appropriate health surveillance when exposure reaches the exposure action value:
 - Exposure action value (EAV) of $2.5 m/s^2 A(8)$ or 100 exposure points.
 - Exposure limit value (ELV) of $5 m/s^2 A(8)$. Or 400 exposure points.



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Excessive hand trimming of piles must be avoided. Pile croppers or debonding sleeve techniques should be utilised.

- The use of technologies such as remotely operated machinery must be utilised to reduce the potential exposure of personnel to vibration.
 - The use of paint-on retarders and power jetting to avoid scabbling operations must be considered as way of reducing exposure.
 - Drill bits and tool points must be kept sharp to reduce vibration.
- Sub-Contractors must ensure;
- The use of suitable low vibration tools.
 - Operators check tools before using them to make sure they are properly maintained to avoid increased vibration caused by faults or general wear.
 - Cutting tools are kept sharp so that they remain efficient.
 - Operators avoid gripping or forcing a tool or work piece more than is necessary.
 - Tools are stored so that they do not have very cold handles when next used.
 - The work pattern/environment is assessed and monitored - it is beneficial to have regular breaks and to keep warm and dry throughout the activity to allow the blood to circulate.
 - Correct operative selection- smoking, poor fitness, age, strength and hereditary conditions may increase individual susceptibility to HAVS.

