

SAFETY ALERT (ALT-009)

Hand-arm Vibration



BACKGROUND

The Health and Safety Executive is urging companies to assess the risks to their employees from exposure to vibration, after a Hampshire company was fined £10,500 in August 2008 for ignoring the safety of a worker. The worker suffered what was described as an unnecessary and permanent disability as a result of the excessive use of vibrating tools. The company pleaded guilty to contravening Section 2(1) of the Health and Safety at Work etc Act 1974 by failing to protect the health of employees, and Regulation 3(1) of The Management of Health & Safety at Work Regulations 1999 for failing to carry out a proper risk assessment.



PRACTICAL GUIDANCE

The **risk assessment** for an employee exposed to hand-arm vibration (HAV) should consider the following:

- the types of vibrating equipment used;
- what the equipment is used for;
- how often the equipment is used;
- how long the worker is in contact with the equipment while operating it (the trigger time);
- how the worker operates the tool, such as posture and grip;
- the working conditions, such as temperature; and
- whether the worker is at particular risk, for example through previous injury.

Where a broad assessment identifies some risk from HAV, then a more quantitative assessment should be undertaken by combining the trigger time and vibration magnitude for each tool used over a working day (or week) and calculating an average level of exposure. This value should be compared against the legal exposure action and limit values to identify the level of risk and then used with the other information gathered in the assessment to plan the actions needed to manage or control it.

Health surveillance is an important part of a HAV management system as it can identify vibration-related problems at an early stage and help avoid their progression. It must be provided by law where workers are regularly exposed above the action value or are otherwise at particular risk.

Workers should be encouraged to cooperate with health surveillance and advised on how to look after the health of their hands, such as by keeping warm when working in cold or wet conditions, by exercising hands and fingers during breaks and reporting any symptoms of HAVS immediately.

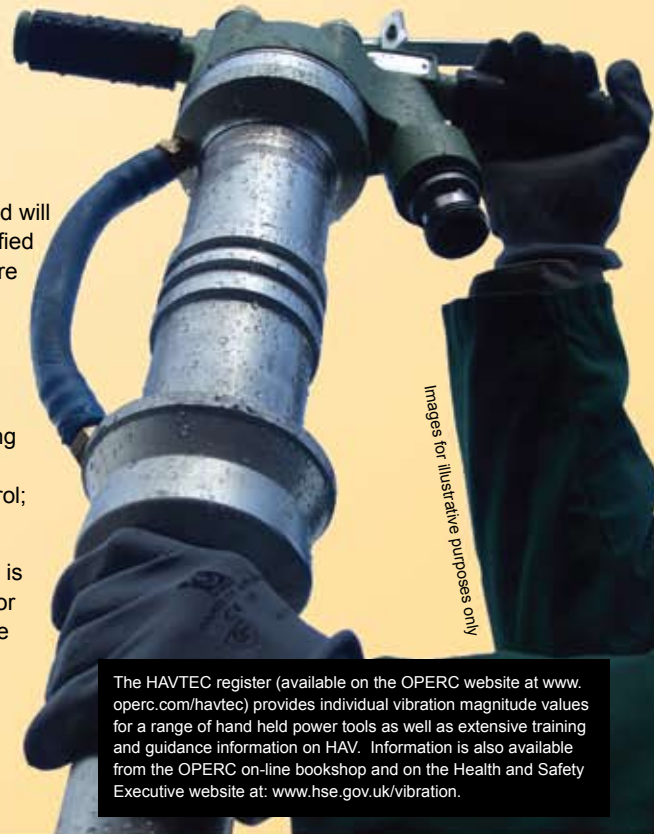
Education and training for HAV should include key issues such as: what the law says, sources of exposure, who is at risk, factors which can affect the risk, health effects, HAVS symptoms and reporting mechanisms, risk controls and health surveillance.

Workers should be trained and competent at operating all of the mechanical tools they use.

Control measures implemented will depend on the level of risk identified by the risk assessment, the nature of the work environment and the reasonably practicable options available. The main ones which should be considered are:

- removing the vibration by using an alternative non-vibrating method, such as remote control;
- reducing the vibration by changing the way a work task is done, e.g. using jigs, clamps or rigs, or rotating work to reduce individual trigger times;
- purchasing the lowest vibration level tools that are suitable for the work;

- selecting the most appropriate tool and/or accessory for a work task, to keep vibration exposure to a minimum;
- maintaining tools/appendages regularly to keep them working efficiently and safely; and
- encouraging safe working so workers know how to check tools for wear or damage, how to store them, how to handle equipment properly and how to report any problems.



Images for illustrative purposes only

The HAVTEC register (available on the OPERC website at www.operc.com/havtec) provides individual vibration magnitude values for a range of hand held power tools as well as extensive training and guidance information on HAV. Information is also available from the OPERC on-line bookshop and on the Health and Safety Executive website at: www.hse.gov.uk/vibration.

SAFETY ALERT (ALT-009)

Hand-arm Vibration



BACKGROUND

The Health and Safety Executive is urging companies to assess the risks to their employees from exposure to vibration, after a Hampshire company was fined £10,500 in August 2008 for ignoring the safety of a worker. The worker suffered what was described as an unnecessary and permanent disability as a result of the excessive use of vibrating tools. The company pleaded guilty to contravening Section 2(1) of the Health and Safety at Work etc Act 1974 by failing to protect the health of employees, and Regulation 3(1) of The Management of Health & Safety at Work Regulations 1999 for failing to carry out a proper risk assessment.



PRACTICAL GUIDANCE

The **risk assessment** for an employee exposed to hand-arm vibration (HAV) should consider the following:

- the types of vibrating equipment used;
- what the equipment is used for;
- how often the equipment is used;
- how long the worker is in contact with the equipment while operating it (the trigger time);
- how the worker operates the tool, such as posture and grip;
- the working conditions, such as temperature; and
- whether the worker is at particular risk, for example through previous injury.

Where a broad assessment identifies some risk from HAV, then a more quantitative assessment should be undertaken by combining the trigger time and vibration magnitude for each tool used over a working day (or week) and calculating an average level of exposure. This value should be compared against the legal exposure action and limit values to identify the level of risk and then used with the other information gathered in the assessment to plan the actions needed to manage or control it.

Health surveillance is an important part of a HAV management system as it can identify vibration-related problems at an early stage and help avoid their progression. It must be provided by law where workers are regularly exposed above the action value or are otherwise at particular risk.

Workers should be encouraged to cooperate with health surveillance and advised on how to look after the health of their hands, such as by keeping warm when working in cold or wet conditions, by exercising hands and fingers during breaks and reporting any symptoms of HAVS immediately.

Education and training for HAV should include key issues such as: what the law says, sources of exposure, who is at risk, factors which can affect the risk, health effects, HAVS symptoms and reporting mechanisms, risk controls and health surveillance.

Workers should be trained and competent at operating all of the mechanical tools they use.

Control measures implemented will depend on the level of risk identified by the risk assessment, the nature of the work environment and the reasonably practicable options available. The main ones which should be considered are:

- removing the vibration by using an alternative non-vibrating method, such as remote control;
- reducing the vibration by changing the way a work task is done, e.g. using jigs, clamps or rigs, or rotating work to reduce individual trigger times;
- purchasing the lowest vibration level tools that are suitable for the work;

- selecting the most appropriate tool and/or accessory for a work task, to keep vibration exposure to a minimum;
- maintaining tools/appendages regularly to keep them working efficiently and safely; and
- encouraging safe working so workers know how to check tools for wear or damage, how to store them, how to handle equipment properly and how to report any problems.



The HAVTEC register (available on the OPERC website at www.operc.com/havtec) provides individual vibration magnitude values for a range of hand held power tools as well as extensive training and guidance information on HAV. Information is also available from the OPERC on-line bookshop and on the Health and Safety Executive website at: www.hse.gov.uk/vibration.