

Is your business ready?

Managing the risk of vibration at work and mitigating the cost of claims



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Helping you understand Hand Arm Vibration (HAV)

Regulation and guidance in mitigating the risk.

From 6 July 2010, all employers are required to comply with The Control of Vibration at Work Regulations 2005. With this deadline just a few months away, there are a number of steps employers must take to successfully address vibration-related risk and avoid costly HAV claims.

In the current uncertain economic climate it is anticipated that there could be a significant increase in the number of Hand Arm Vibration (HAV) claims being pursued. People who have lost their jobs are more likely to consider making a claim. Each of these claims will require detailed and often lengthy investigation that will undoubtedly impact on an employer's time and will carry hidden cost implications to their business.

Drawing on the expertise of our in-house Occupational Disease Centre and working in partnership with solicitors Beachcroft LLP, we have produced this guide to give our collective views on Hand Arm Vibration Syndrome (HAVS).

Rod Carver, Risk Consultant at Zurich, said: "If you implement appropriate arrangements to manage Hand Arm Vibration, you will be complying with the law, and, from an insurer's point of view, will be a more attractive risk. Although you might highlight some existing cases initially, you can manage these in the short term, confident that you will have reduced the chance of ill health and resulting claims in the future."

The problem

The Health and Safety Executive (HSE) estimates that five million workers are exposed to HAV in the UK with two million exposed to levels where there is a clear risk of developing vibration-related health conditions.

Which sectors are most at risk?

Building construction, civil engineering, heavy engineering utilities, and estate management are among the industries most likely to encounter HAV exposures.

Which tools cause HAVS?

HSE guidance states that employers will have to take action to address vibration exposures where employees regularly use hand held or hand guided tools such as breakers, concrete pokers, sanders, grinders, scabblers, disc cutters and hammer drills.

When must action be taken?

HSE advises that action needs to be taken where employees use hammer action tools for more than 15 minutes per day or rotary or other action tools for more than about one hour a day. It adds that the risk will be high where these exposures increase to one hour and four hours a day, respectively.

A person's exposure to vibration is calculated on an eight-hour daily exposure equivalent known as the A(8) which is measured in m/s^2 and based on vibration readings for equipment (which varies for different types of tool and will be affected by how well maintained the tool is) and the amount of time spent with the tool operational ('trigger time').

The Control of Vibration at Work Regulations specify the daily exposure action value (EAV) at $2.5m/s^2$ A(8) as being the daily amount of vibration exposure above which employers are required under the Regulations to take action to control exposure. They also specify a maximum amount of vibration that employees may be exposed to on any one single day – exposure limit value (ELV) is set at $5m/s^2$ A(8). ▶

Management best practice – controlling the risk

The Regulations require employers to assess their employees' exposure to HAVS and, where necessary, introduce control measures to reduce vibration exposure and to provide information, training and health surveillance.

Risk assessments

Risk assessments should include observation of working practices, reference to vibration information and, if necessary, measurement of employees' vibration exposure. This will help to determine whether the exposure is likely to exceed the ELV or EAV.

Preventative measures

Control of vibration should be based on eliminating exposure at source or reducing it to the lowest reasonably practicable level. The first approach should always be to remove or avoid exposure to vibration by tackling work in a different way, or by using more efficient or better designed equipment. Obviously this is not possible in all cases, but should be the starting point for any risk assessment, and should be considered in longer term strategic planning to reduce the risk of injury from Hand Arm Vibration. Once these fundamental issues have been considered, and exposure has been reduced at source, management controls such as equipment maintenance, provision of training and information, control of exposure time and rest periods and the provision of clothing to protect employees from cold and damp can be considered to reduce the risk still further.

Using a colour coding system of equipment linked to safe working limits can help to increase employee awareness that exposure on certain tools should not exceed the maximum permitted per day.

Record keeping

It is important that vibration risk assessments are carried out by someone who understands the work employees undertake and the requirements of the Regulations. To be suitable and sufficient, the assessment should be recorded and address working conditions and processes, probable exposures and, if necessary, specific exposure measurement. In the event of a specific exposure measurement, it is essential that the equipment is measured performing the task in its usual conditions, for example on the same kind of material in order to ensure accurate measurements are taken.

The assessment must include the control measures already in place and additional controls that will be required. The HSE has produced simple guidance to assist with this. As with any risk assessment process, it is important to carry out regular reviews and to challenge assessments in the light of any instances of ill health, evidence of control failures or significant equipment or work changes.

Rod Luck, Occupational Disease Claims Manager at Zurich, advises: "Record keeping is so important with this type of claim. Without records we are at a great disadvantage when handling these claims. Please help us to help you..

Health surveillance

Construction is a high-risk industry so health surveillance in this sector is recommended. Even if exposure is assessed as unlikely to exceed the exposure action value, it will still be necessary to carry out basic health screening to identify employees with existing health problems that may make them more at risk from vibration exposure than others.

Controlling the workplace

Consideration of the effects of vibration exposure on employees whose health is at risk is a fundamental part of the risk assessment process. Health surveillance forms an important checking process to ensure control measures remain effective. However, working within the HSE guidelines will not necessarily provide a defence to a claim. If it is reasonably practicable to reduce exposure further then this is what the Regulations require.

Health surveillance to diagnose or prevent health effects linked to vibration exposure at work is required where the risk assessment identifies that there is a risk to employees' health from vibration or that exposure is likely to exceed the exposure action value. ►

Conducting checks


Gathering health information, carrying out initial health screening and future health surveillance need not be a particularly complex process. However, you have to manage its implementation and communicate with your workforce to ensure they understand what is being done, why it is being done, the way the information will be used and the potential benefit to them.

If you already have access to occupational health support, your health professional can assist you with implementing the process. If not, you can use the HSE's 'tiered' approach to health surveillance. Details are available on its website www.hse.gov.uk. This approach works as follows:

- Tier 1: Issue an initial questionnaire to all employees who may be exposed to vibration
- Tier 2: Issue an annual screening questionnaire to all employees who may be exposed to vibration to check whether they have developed symptoms
- Tier 3: Arrange a HAV health assessment by a qualified occupational health professional where issues are identified in the initial or annual questionnaires
- Tier 4: Conduct a formal diagnosis by an occupational health doctor in response to the findings of Tier 3.

From an insurer's perspective, in order to combat claims it is important to carry out initial assessments (Tier 1) at the pre-employment stage and also to carry out further screening (Tier 2) annually thereafter. Screening should also be done before employees leave, if possible, particularly in the case of redundancy.

We suggest that reviews are undertaken before any communication of impending redundancies to avoid exaggerated reporting of symptoms and clinical history, as diagnosis of HAVS is largely based on subjective reporting rather than objective testing.

This information only gives an outline of the procedure. You should consult the HSE's guidance and, if necessary, an occupational health provider to ensure you obtain maximum benefit from the process before you start any health screening or surveillance work. 

The insurer's view

The humanitarian aim when controlling HAV exposure should be to reduce exposure and prevent employees developing vibration-related health conditions or making existing damage worse.

It appears to be a common view, however, that the introduction of health surveillance as part of a company's assessment and control strategy could open a 'can of worms' that would have a major impact on productivity and profitability.

There also appears to be a strong feeling that asking questions about health issues and introducing formal health surveillance can only cause problems for employers, employees and insurers. For example, by identifying otherwise undisclosed health issues which will have to be addressed by changes in the working environment, and are likely to result in additional claims.

In reality, however, the number of people suffering from HAVS and making claims is a small percentage compared with the number working with vibrating tools. Indications show that companies that have implemented detailed assessments, robust controls and health surveillance have found the logistics of control to be easier than they thought and have identified a lower than expected potential for claims when implementing health surveillance.

Research by utilities contractor McNicholas Construction Ltd proves this point. The company has been monitoring HAVS closely since 2001 in all its work activities and changed the work patterns of employees who were most at risk. New equipment was introduced and briefings on the dangers of HAVS are given to all employees. In 2004, McNicholas introduced full ongoing health surveillance and from around 800 surveillance visits made every year, only about 5% of employees have shown early signs of developing HAVS.

Steven McNicholas, Compliance Director at McNicholas Construction Ltd commented "At first the whole issue appeared rather daunting, but the exercise we went through not only ensured that we met our legal obligation and protected our employees' health, it also allowed us to have a more flexible, more productive workforce. The ongoing health surveillance which we still provide does not find many new cases at all, even though we did expect that it would. In practice around 4% of our workforce have to be seen again, and in only one case has early stage HAVS been confirmed, enabling us to deal with the individual's symptoms actively and effectively." ►

The legal position

Employers have a general common-law duty to keep up to date with current knowledge and implement any improvements in safety standards quickly to protect the health and safety of their workers.

Whilst The Control of Vibration at Work Regulations specify the action level at 2.5m/s^2 , it is not safe for employers to do nothing when exposure is assessed at below that level.

As Andrew Stokes, Health & Safety Partner at Beachcroft comments, "It is essential not to fall into a trap of believing that if a worker's exposure is below the daily action level under the Regulations the courts won't consider you are still under an obligation to take steps."

In Beachcroft's experience the courts have historically been willing to find, based on common-law duties, that even where exposure levels have been below historic action levels defendants should have identified problems and taken steps to reduce or eliminate exposure. This has happened with the 2.8m/s^2 standard set in the HSE's Guidance in 1994 and even the 2.5m/s^2 standard subsequently set under The Control at Work Regulations.

The British Standard states a daily exposure level of below 1m/s^2 is unlikely to result in the development of symptoms. The problem for the employer is that, even with the most modern technology, there would have to be very sporadic tool use to have a reasonable prospect of proving that exposure fell below that level. Most consulting engineers giving expert evidence in court will accept that exposure levels at 1m/s^2 and above give rise to a foreseeable risk of injury.

What is the extent of the steps that need to be taken?

In one first instance case of *Maxfield v ATS* where exposure was above 1m/s^2 but below the statutory action level, the court held that ATS was under a duty to find ways that were reasonably practicable to reduce exposure and held this should include:

- a properly reasoned warning on the risk of HAVS with vibration exposure
- a specific instruction on how to reduce the risk of exposure in the way work is undertaken
- providing information on the symptoms of HAVS
- issuing instructions to report symptoms and
- providing training on reducing vibration exposure.

However, other first instance court decisions have been less onerous and have accepted that a reasoned warning on the risks from vibration is sufficient where exposure has exceeded 1m/s^2 but not 2.5m/s^2 .

So, our advice is that unless you are confident that exposure levels are below 1m/s^2 , a sensible risk management system involves you taking all of the steps that The Control of Vibration at Work Regulations 2005 state that you must take, as if the 2.5m/s^2 action level is exceeded.

To do otherwise could leave you at a significant litigation risk many years down the line after the initial exposure, when such claims often emerge.

As an absolute minimum, Beachcroft strongly recommends that you warn employees now of the risks of HAVS from vibration exposure, the symptoms to look out for and the need to report such symptoms. You should also undertake a system of monitoring to identify problems at the earliest opportunity.

This is not to say that if you have done everything reasonably practicable to eliminate or reduce vibration exposure that you will still be liable for exposures above 2.5m/s^2 . A claim will remain defensible provided it can be proved all that can be done has been done. Indeed a recent Court of Appeal decision (still yet to be reported) is understood to make it clear that vibration exposure must regularly exceed the action level for a breach of duty to be established.

Clearly, however, the more action taken, the greater the claim's defensibility.

Maintain surveillance

If health surveillance has not been undertaken and would have picked up a susceptibility, vulnerability or symptoms in an individual employee, then the courts are likely to find that there is a breach of duty. It is therefore essential that you undertake surveillance where an assessment confirms a risk of HAVS. If an individual is identified as susceptible you must tailor your protective steps to them, as you owe a duty of care to your employees as individuals. ►

Recording preventative steps taken

To maximise the defensibility of claims it is recommended that a programme of preventative measures is undertaken and recorded for all employees making use of vibratory tools unless you are absolutely confident that exposure will be below 1m/s^2 (as opposed to The Control of Vibration at Work Regulations 2005 action value of 2.5m/s^2). These records should be retained and be accessible in the future.

Failing to address the fundamental issues of assessment, control and health surveillance also renders employers open to criminal enforcement action and a conviction following prosecution will undermine any defence to a subsequent civil claim.

Impact on future employment

Uncontrolled exposure is also likely to exacerbate the severity of the damage suffered and the value of the claim. HAVS claims also often include an element of disadvantage on the open labour market, if a person can no longer make use of vibratory tools, has reduced dexterity or is restricted from working in cold conditions.

If you are the employer at the time of the claim, this can often leave you with very difficult considerations such as the need to make adjustments to the claimant's tasks to avoid all vibratory tool use, in order to avoid the risk of exacerbation and a potential further claim at a later date. You may also need to consider termination of employment with all of the potential employment law implications, including unfair dismissal and disability discrimination.

The age of the claimant is another significant factor. The younger the claimant, the longer their future career could be subject to a disadvantage, while for older claimants there is more likely to be a limited skill set and less scope for finding future employment. Either way, failure to control vibration risks could prove expensive.

Financial benefits of managing risks

Proactive prevention of vibration injury can provide significant financial benefits.

- It is costly to adjust work tasks, comply with Disability Discrimination Act requirements and, if necessary, manage the termination of employment.
- Claims can be very expensive when somebody becomes restricted in relation to their future employment.
- Assessing or making adjustments for symptomatic employees who can no longer make use of any tools takes up considerable management time.
- Effective risk management means claims can be better controlled, which impacts on the employer's and insurer's bottom line.

Savings can be made if you:

- Reduce exposure
- Gain control of vibration levels and
- Minimise the number of employees that become symptomatic, so any symptoms within your workforce remain at a manageable level.

The larger the proportion of the workforce that suffers symptoms and requires adjustments, the more unmanageable and the greater the need for terminations, which will have a consequential impact on business operating costs and claims values. ►

What to do in the event of a claim

In the event of a claim you should:

- Pass the letter of claim immediately to your relevant insurers. It is necessary to identify the correct insurers, who may not be your current providers
- HAVS is termed a long-tail cumulative disease, where all exposure is deemed to contribute to the condition. The letter of claim should provide the exposure period the claimant alleges he or she has suffered while employed by you
- This period may cover many years during which you have had a number of different insurers. The claim needs to be reported to all insurers involved over the exposure period
- Usually, under market practice the insurers providing cover for the last part of the exposure period will coordinate the claim with all previous insurers. This may change if an earlier insurer has a much larger proportion of the exposure period
- You should provide each insurer with details of all other insurers the claim has been reported to along with policy numbers and addresses as this will speed up coordination
- You should acknowledge receipt of the letter of claim and advise that the matter has been passed to your insurers. Details of those insurers can be provided. No other comments on the claim should be made
- You need to gather and collate information on the claimant and the work that has been undertaken. The insurers will need the following:
 - Confirmation of the claimant's employment period with you.
 - A full chronology of the jobs/work undertaken by the claimant over that period, which may extend prior to and after the alleged exposure period. This will help insurers ascertain whether the exposure period alleged is correct.
 - Confirmation of the nature of work undertaken and copies of any job descriptions should be provided. Specific information should be provided on any work requiring the use of vibratory equipment.
 - Details of the type of vibratory equipment used, along with copies of any manuals or instruction booklets on them.
 - Records of maintenance on such equipment.
 - Details and copies of any risk assessments prepared on the use of vibratory equipment.
 - Details of any personal protective equipment provided to users of vibratory equipment and copies of any records held confirming the claimant has been in receipt of such equipment.
 - Details of any training provided to users of vibratory equipment, along with copies of any training materials used. Copies of any records confirming the claimant attended such training.
 - Copies of any other instructions issued to the claimant on the use of vibratory equipment.
 - Copies of any instructions issued to managers or supervisors of employees using vibratory equipment on how such use is to be managed, particularly regarding the enforcement of job rotation, rest periods and use of personal protective equipment.
 - Copies of any records that confirm the amount of daily time the claimant would have used vibratory equipment.
 - Names of managers/supervisors of the claimant who should be able to provide witness evidence on the claimant's exposure to vibratory equipment.
 - Copies of the claimant's personnel and occupational health records. It is appreciated that a mandate from the claimant will be required for the disclosure of these. Your insurers will obtain this. Sometimes, the letter of claim will enclose a mandate for the records to be released to the solicitors. This should be left for your insurers to deal with.
- Some of the generic information referred to above may have been supplied to insurers on a previous claim. If so, further copies should not need to be provided with each newly reported claim.

You may receive pre-claim enquiries from solicitors. Consider carefully what is being asked for. If it is copies of personnel and occupational health records, subject to a mandate, these can be provided. Any other requests should be refused. If in doubt contact your insurers for advice. Zurich's Occupational Disease Claims Team will be happy to provide guidance even if we are not insurers for the potential exposure period.

Zurich HelpPoint®

Our highly experienced Occupational Disease Claims Team is able to:

- Effectively assess and investigate claims
- Assess medical evidence and identify if conditions are genuine. We will obtain our own medical evidence, if required
- Consider potential defences to claims, particularly in respect of limitation
- Identify trends in the claims community and with individual customers
- Identify potentially fraudulent claims. We have a dedicated fraud coordinator who is experienced in handling disease claims.

Zurich can assist customers to understand and manage their vibration risk through:

- Training in the awareness of sources of vibration and how to control it
- Audit and review of management systems to strategically and operationally deal with vibration issues
- Undertaking tool vibration measurements to help the employer assess the exposures to vibration from that equipment.

Advice for brokers and their customers

This factsheet is available to download at www.zurich.co.uk/brokerzone

To find out more about how we can help you with your regulatory responsibilities please contact Brian Friar on **0121 697 9131** or e-mail him at brian.friar@uk.zurich.com

Should you require any further guidance please contact your insurance broker or Paul Furness, Project Manager, Zurich Construction, at paul.furness@uk.zurich.com or on **0121 697 8789**

Guidance from the Health and Safety Executive (HSE) is available at www.hse.gov.uk/vibration/index.htm

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