

**Vibration Arrangement and Guidance**

**Contents:**

1. Statement of purpose/objectives
2. Scope
3. Assessment of vibration exposure at the workplace
4. Elimination or control of vibration exposure at the workplace
5. Health surveillance
6. Information, instruction and training
7. Implementation
8. Review of procedure

**1. Statement of purpose/objectives**
This arrangement sets out what the Council will do to care for its staff and comply with the Control of Vibration at Work Regulations 2005.

**2. Scope**
The document applies to all Shropshire Council employees including part time, temporary and voluntary.

**3. Assessment of vibration exposure at the workplace**
Shropshire Council will ensure that assessments of the risk from hand-arm and whole-body vibration to the health and safety of employees is undertaken by a competent person. This will identify workers who may be exposed above the daily exposure action value (EAV) or exposure limit value (ELV). The assessment will be recorded and will be reviewed periodically.

**4. Elimination or control of vibration exposure at the workplace**
Shropshire Council will work to eliminate or reduce the risk from exposure to vibration to the lowest level reasonably practicable. If employees are exposed above the ELV, immediate action will be taken to reduce this exposure to below the ELV.

**5. Health surveillance**
Shropshire Council will ensure employees identified as being at risk from vibration are placed under suitable health surveillance and suitable records of this are kept in a confidential manner. Employees will be required to co-operate with any health surveillance programme implemented by Shropshire Council.

**6. Information, instruction and training**
Shropshire Council has a duty to provide adequate information, instruction and training to employees about their likely vibration exposure, the risk to their health and what is being done to control risks and exposures. The employee’s duties will be explained to them including the symptoms of ill health to look out for and how to report them.

**7. Implementation**
Management guidance in the form of Frequently Asked Questions is provided and updated to support the implementation of this arrangement. Critical items which managers must take action on are indicated in red text.

**8. Review of procedure**
This arrangement will be periodically reviewed by the Health and Safety Team in consultation with unions.

**Approving Body**
Health, Safety & Welfare Group - May 2007 – this revision June 2019.
Reviewed by Health and Safety Team December 2021.

Reviewed by Health and Safety Team October 2024.

**Vibration Guidance - Frequently Asked Questions**

**Contents:**

1. Roles and responsibilities/who does what?

2. What is the law relating to work related vibration

3. What are the action levels and limit values introduced by the Vibration Regs (The Control of Vibration at Work Regulations 2005)?

4. What is hand-arm vibration (HAV)?

5. When is hand-arm vibration hazardous?

6. What are the early symptoms of hand arm ill health?

7. What effects do these symptoms have?

8. What should be done if an employee reports having symptoms of HAVs?

9. What is whole-body vibration (WBV)?

10. What is the harm caused by excessive whole-body vibration?

11. How should the Council manage risks to the health and safety of employees who are exposed to vibration?

12. Which employees need health surveillance?

13. How can the harmful effects of hand-arm vibration be minimised.

14. How can the harmful effects of whole-body vibration be minimised?

15. Should routine continual monitoring or logging of workers' vibration exposure be carried out?

16. What information, instruction and training is required?

17. What records should be kept?

|  |  |
| --- | --- |
| **1** | **Roles and responsibilities/who does what?** |
|  | The Organisation - Specific Responsibilities document sets out the roles and responsibilities with regard to health and safety management for all levels of staff within the Council. |
|  |  |
| **2** | **What is the law relating to work related vibration?** |
|  | The Control of Vibration at Work Regulations 2005 (the Vibration Regs) came into force to protect workers from risks to health from vibration. The regulations introduced action and limit values for hand arm and whole-body vibration – see point 3 below. Under the Vibration Regs Shropshire Council has general duties to assess levels of exposure, to reduce exposure so far as is reasonably practicable, to provide suitable instruction, information and training and, where necessary, health surveillance. |
|  |  |
| **3** | **What are the action levels and limit values introduced by the Vibration Regs (The Control of Vibration at Work Regulations 2005)?** |
|  | Exposure action levels and limit values aim to protect workers from risks to health from vibration. The exposure action value (EAV) is a daily amount of vibration exposure above which employers are required to take action to control exposure. The greater the exposure level, the greater the risk and the more action employers will need to take to reduce the risk. For hand-arm vibration the EAV is a daily exposure of 2.5m/s2 A(8).For whole-body vibration the EAV is a daily exposure is 0.5m/s2 A(8). The exposure limit value (ELV) is the maximum amount of vibration an employee may be exposed to on any single day. It represents a high risk above which employees should not be exposed. If the exposure limit value is being exceeded, immediate action must be taken to reduce exposure and to identify the reason for overexposure.For hand-arm vibration the ELV is a daily exposure of 5m/s2 A(8).For whole-body vibration the ELV is a daily exposure of 1.15 m/s2 A(8). |
|  |  |
| **4** | **What is hand-arm vibration?** |
|  | Hand-arm vibration (HAV) is vibration transmitted into the hands and arms whilst using handheld powered work equipment such as road breakers, and hand-guided equipment such as powered lawnmowers, or by holding workpieces which vibrate while being processed by powered machinery, such as pedestal grinders. It can cause a range of conditions known collectively as hand arm vibration syndrome (HAVS), as well as specific diseases such as carpal tunnel syndrome (CTS) |
|  |  |
| **5** | **When is hand arm vibration hazardous?** |
|  | Regular and frequent exposure to hand-arm vibration can lead to permanent health effects. This is most likely when contact with a vibrating tool or work process is a regular part of a person’s job. Examples of such tools are: * Chainsaws
* Concrete breakers/road breakers
* **A yellow machine with black handles  Description automatically generated**Cut-off saws (for stone etc)
* Hammer drills
* Hand-held grinders
* Impact wrenches
* Jigsaws
* Pedestal grinders
* Polishers
* Power hammers and chisels
* Powered lawn mowers
* Powered sanders
* Scabblers
* Strimmers/brush cutters/hedgecutters
 |
|  |  |
| **6** | **What are the early symptoms of hand arm ill health?**  |
|  | Identifying signs and symptoms at an early stage is important. It allows Shropshire Council to take action to prevent the health effects from becoming serious for an employee. The symptoms include any combination of:* tingling and numbness in the fingers;
* not being able to feel things properly;
* A close up of a hand  Description automatically generatedloss of strength in the hands;
* fingers going white (blanching) and becoming red and painful on recovery (particularly in the cold and wet, probably only in the tips at first).

For some people, symptoms may appear after only a few months of exposure, but for others they may take a few years. They are likely to get worse with continued exposure to vibration and may become permanent. |
|  |  |
| **7** | **What effects do these symptoms have?** |
|  | The effects on people include:* pain, distress and sleep disturbance;
* inability to do fine work (for example assembling mall components) or everyday tasks such as fastening buttons;
* reduced ability to work in cold or damp conditions such as outdoor work which would trigger painful finger blanching attacks;
* reduced grip strength, which might affect the ability to do work safely.

These effects can severely limit the jobs an affected person is able to do, as well as many family and social activities. |
|  |  |
| **8** | **What should be done if an employee reports having symptoms of HAVs?** |
|  | The employee should be referred to Occupational Health immediately and taken away from work involving vibration until they have been seen and further advice is obtained.Managers with access to ERP should make the referral by completing the Occupational Health Referral Form on Unit 4 ERP. Should a Manager not have access to ERP, a referral form can be obtained by emailing occupational.health@shropshire.gov.uk or telephoning 01743 252833. The Health and Safety Team should also be informed by completing an ERP Incident Form. Once the Occupational Health report from the referral has been received the Manager must read it and discuss with the Health and Safety Team what further action must be taken. If the employee has been diagnosed with Hand-Arm Vibration Syndrome (HAVS) or Carpal Tunnel Syndrome (CTS) this must be reported to the Health and Safety Executive under The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR). This will be done by the Health and Safety Team. Where a recommendation is received, from an Occupational Health Physician, that an employee can no longer be exposed to vibration and therefore is unable to discharge the duties for which they are employed the Council will, wherever possible, endeavour to provide suitable alternative employment. |
|  |  |
| **9** | **What is whole-body vibration** |
|  | **A red and black lawnmower  Description automatically generated**Whole-body vibration (WBV) is transmitted through the seat or feet of employees who drive or ride on mobile machines, or other work vehicles, over rough and uneven surfaces as a main part of their job. Large shocks and jolts may cause health risks including back-pain.Everyone who drives or travels on any kind of vehicle, or who stands or sits on vibrating machines, will be exposed to WBV. However, comparatively few of them will be at risk of ill health. The main thing to look for is whether the workers suffer any shocks and jolts during their exposure (for example, by driving over a ploughed field), as opposed to being exposed to continuous but low-level vibration (for example, in a car on a motorway).  |
|  |  |
| **10** | **What is the harm caused by excessive whole-body vibration?** |
|  | Most exposure to whole-body vibration at work is unlikely on its own to cause back pain. It may pose a risk when there is unusually high vibration or jolting or the vibration is uncomfortable for a long time on most working days. In such situations, the risk from vibration is related to the overall time the operator or driver is exposed to the vibration and the number of shocks and jolts they experience each day. In some cases whole-body vibration can aggravate a back problem caused by another activity, eg a muscle strain caused by an accident when lifting a heavy object or during physical activity such as sport |
|  |  |
| **11** | **How should the Council manage risks to the health and safety of employees who are exposed to vibration?**  |
|  | The first essential step is risk assessment. Service areas should carry out vibration risk assessments wherever staff use hand-held power tools such as road breakers, hammer drills and chainsaws, hand-guided equipment such as lawn mowers or strimmers, or where staff drive vehicles off-road. The aim of risk assessment is to help us decide what needs to be done to ensure the health and safety of employees who are exposed to vibration. They should be used as the basis for formulating action plans for any necessary remedial measures. The risk assessments should:* contain a reasonable estimate of employee’s exposures. To assist with this vibration levels may need to be measured with a hired in vibration meter;
* decide whether employees’ exposures are likely to be above the Exposure Action Value (EAV) or Exposure Limit Value (ELV);
* identify what vibration control measures are needed to comply with the law;
* identify any employees who need health surveillance or who are particularly at risk.

These risk assessments should be carried out by someone who has read and understood the HSE’s Vibration Risk Assessment pages available here [HSE's Vibration Risk Assessment](https://www.hse.gov.uk/vibration/hav/advicetoemployers/assessrisks.htm), has a good knowledge of the work processes and is able to collect and understand the relevant information. The Health and Safety Team are able to support with the completion of these risk assessments. The findings of the risk assessments must be recorded along with an action plan of anything identified as being necessary to comply with the law, setting out what has been done and what is going to be done, with a timetable and saying who will be responsible for the work.The risk assessment will need to be reviewed if circumstances in the workplace change and affect exposures (e.g. the introduction of new tools or new work processes) or else regularly, to make sure that all that is reasonably practicable is being done to control the vibration risks. |
|  |  |
| **12** | **Which employees need health surveillance?** |
|  | Hand-arm vibration Health surveillance must be provided for all employees who, despite action to control the risk, are likely to be regularly exposed above the hand-arm vibration Exposure Action Value or are considered to be at risk for any other reason. The purpose of health surveillance is to:* Identify anyone exposed or about to be exposed to hand-arm vibration who may be at particular risk, for example people with blood circulatory diseases such as Raynaud's Disease;
* Identify any vibration-related disease at an early stage in employees regularly exposed to hand-arm vibration;
* Help prevent disease progression and eventual disability;
* Help people stay in work;
* Check the effectiveness of vibration control measures.

When an employee takes on a new role, the manager will receive an email from ERP if potential health risks, e.g. hand arm vibration, are identified linked to their new position. If the manager believes the employee will be exposed to vibration above the Exposure Action Value 2.5m/s2 A(8) then health surveillance will be required and this should be flagged up in response to the email from ERP.Whole body vibration Health surveillance would only be required where an employees’ job carried a higher than average risk of back pain, due to the tasks or an individual’s susceptibility. If either of these situations arises the work processes should be reviewed in order to reduce the risks to a lower level and a discussion with Occupational Health to see what health monitoring might be needed.  |
|  |  |
| **13** | **How can the harmful effects of hand-arm vibration be minimised?** |
|  | The risk of developing HAVS or CTS depends on the amount of vibration, length of use, the way you use the tools, and how cold it is. Some of the risks posed by hand-arm vibration can be reduced by doing the following:* Using suitable low-vibration tools. Wherever possible, buy or hire low vibration tools and equipment.
* Using the right tool for each job (to do the job more quickly and expose the worker to less hand-arm vibration).
* Checking tools before using them to make sure they have been properly maintained and repaired to avoid increased vibration caused by faults or general wear.
* Making sure cutting tools are kept sharp so that they remain efficient.
* Reduce the amount of time a tool is used in one go, by doing other jobs in between.
* Avoid gripping or forcing a tool or workpiece more than necessary.
* Storing tools so that they do not have very cold handles when next used.
* Encouraging good blood circulation by keeping warm and dry (when necessary, wearing gloves, a hat, waterproofs and using heating pads if available);
* Giving up or cutting down on smoking because smoking reduces blood flow;
* Massaging and exercising fingers during work breaks.
* Reporting any concerns about health or the equipment used to managers.
 |
|  |  |
| **14** | **How can the harmful effects of whole-body vibration be minimised?** |
|  | Some of the risks posed by whole-body vibration can be reduced by doing the following:* Adjusting the driver weight setting on suspension seats, where it is available, to minimise vibration and to avoid the seat suspension "bottoming out” when travelling over rough ground.
* Adjusting the seat position and controls correctly, where adjustable, to provide good lines of sight, adequate support and ease of reach for foot and hand controls.
* Being aware of higher exposure activities, i.e. where ground conditions are poor.
* Adjusting vehicle speed to suit the ground conditions and to avoid excessive bumping and jolting.
* Operating controls smoothly when steering, braking, accelerating, changing gears and operating attached equipment, such as excavator buckets.
* Avoiding rough, uneven or poor surfaces where possible and reducing speed where such surfaces cannot be avoided.
* Avoiding twisted posture, particularly when exposed to shocks and jolts.
* Looking out for and reporting excessive whole-body vibration and bouts of back pain.
* Using the right vehicle for the job.
* Maintaining and repairing the vehicle, including suspension systems, tyres and tyre pressures.
* Replace solid tyres on machines such as fork-lift trucks, sweepers and floor scrubbers before they reach their wear limits.
* Plan work site routes to take account of vibration risks as well as safety factors.
* Regularly maintain paved surfaces, tracks and site roadways and remove potholes, debris, bumps and ridges on your premises.
* Assess work patterns to minimise time spent in vehicles/plant by individuals, e.g. introduce rotas.
* Reporting any health or equipment problems to a manager.
 |
|  |  |
| **15** | **Should routine continual monitoring or logging of workers' vibration exposure be carried out?** |
|  | Routine continual monitoring or logging of workers’ vibration exposure is not expected but periodic survey(s) of exposure should be carried out to find out what sort of levels of vibration employees are being exposed to and from what equipment. See [Estimating daily hand-arm vibration exposure](https://shropshirecouncil.sharepoint.com/%3Aw%3A/r/sites/Extranet/hs/_layouts/15/Doc.aspx?sourcedoc=%7B88177291-c2e8-42b4-8849-85a0c0d6dde7%7D&action=view&wdAccPdf=0&wdparaid=357AB34E) for an explanation of how this should be done.Managers should consider the workload of their staff throughout the year and select times when exposure should be monitored to give information about the worst exposures or to demonstrate that exposure is below limit/action values. As a minimum it is suggested that periods of not less than 2 weeks of daily monitoring is carried out 3 or 4 times a year.  |
|  |  |
| **16** | **What information, instruction and training is required?** |
|  | The Council should provide instruction, training and awareness sessions to all appropriate parties, as follows:  |
|  | 1. All employees exposed to vibration and their Line Managers should complete the Leap into Learning Hand Arm Vibration course.
 |
|  | 1. All staff should be briefed by their line managers at induction and periodically throughout their employment as part of Toolbox Talks using the [HAV employee briefing](https://shropshirecouncil.sharepoint.com/sites/Extranet/hs/hsld/Vibration%20control/Hand-arm%20Vibration%20Employee%20Briefing%20Sept%2024.pdf?web=1) and, where applicable, the [WBV employee briefing](https://shropshirecouncil.sharepoint.com/sites/Extranet/hs/hsld/Vibration%20control/Whole%20Body%20Vibration%20Employee%20Briefing%20Sept%2024.pdf?web=1). Records should be kept of these to demonstrate when these were carried out.

  |
|  | 1. All staff should be taken through the risk assessments and any safe systems of work relevant to their roles and to the equipment they will be using to understand the control measures to be taken. Employees must sign to say they have read and understood the information given to them.
 |
|  | 1. All staff exposed to vibration need to understand how to estimate their daily vibration exposure using the following instructions [Estimating daily hand-arm vibration exposure](https://shropshirecouncil.sharepoint.com/%3Aw%3A/r/sites/Extranet/hs/_layouts/15/Doc.aspx?sourcedoc=%7B88177291-c2e8-42b4-8849-85a0c0d6dde7%7D&action=view&wdAccPdf=0&wdparaid=357AB34E). Line Managers must take staff through these instructions and ensure they understand how to complete the necessary record sheet. Equipment should be colour coded green, amber or red to denote the vibration levels emitted.
 |
|  |  |
| **17** | **What records should be kept?** |
|  | It is essential that records are maintained on all aspects of the above. These records will include: |
|  | * Details of any vibration measurements
 |
|  | * Pre-employment assessments of employees
 |
|  | * Health surveillance reports including reports from the Occupational Health Physician or other specialist medical information.
 |
|  | * Risk assessments and signing sheets demonstrating employees understanding
 |
|  | * Records of daily vibration exposure monitoring carried out.
 |
|  | * Work equipment operator manuals, maintenance and repair logs.
 |
|  | * Staff training, toolbox talks, etc.
 |
|  |  |