

# Control of vibration at work procedure

---

---

New policy number: **565**  
Old instruction number: **MAN:S010:b2**  
Issue date: **14 March 2008**  
Reviewed as current: **18 March 2026**  
Owner: **Assistant Director, Health, Safety and Wellbeing**  
Responsible work team: **HSS**

---

## Contents

1 Scope..... 2  
2 References..... 2  
3 Definitions ..... 2  
4 Procedure ..... 3  
Appendix 1 - Explaining the condition ..... 6  
Document history..... 8

# 1 Scope

- 1.1 This policy describes the actions to be taken to control vibration at work, it applies to all London Fire Brigade (LFB) establishments and other sites where LFB staff are working, including at a scene of fire and rescue service (FRS) operations.

# 2 References

- 2.1 The Health and Safety at Work etc Act 1974, Sections 2, 3, 4, 6, 7, and 8.
- 2.2 The Management of Health and Safety at Work Regulations 1999 and Approved Code of Practice L21.
- 2.3 The Control of Vibration at Work Regulations 2005 and HSE Guidance INDG296 (rev2) and INDG175 (rev3).
- 2.4 The Provision and Use of Work Equipment Regulations 1998 and Guidance L22.
- 2.5 The Workplace (Health, Safety and Welfare) Regulations 1992, as amended by The Quarries, Miscellaneous Health and Safety Provisions Regulations 1995 and Approved Code of Practice and Guidance L24.
- 2.6 Policy number 1005 – Supporting health and wellbeing policy.
- 2.7 Policy number 368 – Health, safety and environmental event investigation policy.
- 2.8 HSE (2024) - Hand-arm vibration: Advice on measurement, monitoring, exposure calculation and updated risk-assessment tables.
- 2.9 SOM HAVS Special Interest Group – Vibration-related disease.

# 3 Definitions

<b>Hazard:</b>	Is a potential source of harm.
<b>Risk:</b>	Is the likelihood that the harm from a particular hazard is realised.
<b>Risk assessment:</b>	Is the qualitative or quantitative evaluation of the chance that a hazard will cause harm.
<b>Mechanical vibration:</b>	Vibration that occurs in a piece of machinery or equipment or in a vehicle as a result of its operation.
<b>Hand-arm vibration:</b>	Mechanical vibration that is transmitted to the hands and arms during a work activity.
<b>Whole body vibration:</b>	Mechanical vibration that is transmitted into the body, when seated or standing, through the supporting surface during a work activity.
<b>Daily exposure:</b>	The quantity of mechanical vibration to which a worker is exposed during a working day, normalised to an eight hour reference period, which takes account of the magnitude and duration of the vibration. This reference period is described with the notation – A(8).
<b>Daily exposure action value:</b>	The level of daily exposure set for any worker, which if reached, requires specific action to reduce risk.  For hand arm vibration the value is 2.5 m/s <sup>2</sup> A(8).  For whole body vibration the value is 0.5m/s <sup>2</sup> A(8).

**Daily exposure limit value:** The maximum level of daily exposure set for any worker, which cannot be exceeded, except for circumstances set out in reference 2.3 regulations 6(5).

For hand arm vibration the value is 5 m/s<sup>2</sup> A(8).

For whole body vibration the value is 1.15 m/s<sup>2</sup> A(8).

**Competent person:** A person who has the knowledge and experience to assess the potential vibration hazard from a piece of equipment having received task related vibration measurement information from a person/organisation certificated as competent to take such measurements. The competent person will relate the vibration measurements to the actual use of that equipment in LFB.

## 4 Procedure

### Legislation

4.1 This policy takes account of all the legislation and guidance documents included in section 2 above.

### Responsibility

#### Head of service

4.2 The head of service or a person nominated by the head of service is responsible for ensuring that the requirements of this procedure are implemented and that managers have sufficient information and training to enable them to discharge their duty at locations under their responsibility (reference 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 and 2.7).

#### Managers

4.3 Managers must ensure that their staff receives suitable and sufficient training and information regarding the risk to health from using vibrating equipment and the precautions to protect them. Managers will implement and supervise the safe systems of work (including job rotation) when circumstances are identified as potentially injurious, and when required maintain records of exposure.

4.4 In circumstances where employees believe they have suffered injury through exposure to vibration while at work, their manager will make arrangements for an examination by the Brigade's occupational health provider, within 48 hours of the initial report, where possible. Any report of this condition is to be recorded in the Brigade safety event recording database (SERD). Managers will inform an employee of when they are required to attend medical appointments (reference 2.6 and 2.7).

#### Employees

4.5 All employees have a responsibility to use items of equipment supplied by the Brigade in a manner which will ensure they are not exposed to harmful levels of vibration. Where they require training in the operation of equipment that has vibration characteristics they must co-operate with such training. Anyone required to use equipment or machinery must do so in accordance with the extant operating instructions. (reference 2.1, 2.2, 2.3 and 2.4).

4.6 Any employee who believes that they have been exposed to excessive vibration during a workplace activity, or where they believe they have symptoms which may have been caused through the use of vibrating equipment, must report the matter to their manager as soon as possible. Employees must subsequently co-operate with any investigation into the exposure to

vibration, including attendance for examination at the Brigade's occupation health provider (reference 2.6 and 2.7).

- 4.7 All employees have a responsibility to comply with instructions to attend the Brigade's occupational health provider and be subjected to examination at such times as they are advised to attend. Employees are required to divulge information, to the occupational health provider, concerning their exposure to vibration from non-LFB workplace activities if so required (reference 2.1, 2.2, 2.6 and 2.7).

## **Managers with specific responsibilities**

### **Contract manager for occupational health provision**

- 4.8 The contract manager for occupational health provision will ensure that any contract or contracts with an occupational health provider(s) include a provision for the examination of Brigade employees who may have been exposed to excessive vibration or are suffering symptoms that might be related to vibration over exposure. This provision must include the examination of people who may have been exposed to excessive vibration within 48 hours of the exposure being reported (reference 2.6 and 2.7).
- 4.9 The contract manager for occupational health provision will ensure that the provider conducts examinations in line with the requirements of the regulations and associated policy (reference 2.3) and has arrangements to retain records of the results of vibration related examinations for a period of not less than forty years.

### **Managers designated to produce or revise operational notes or other procedures**

- 4.10 Managers designated to produce or revise operational notes or other procedures which appertain to equipment and circumstances where vibration is likely to be experienced, must advise the competent person in order that a vibration assessment can be made at the earliest possible opportunity. Cognisance must be taken of any advice given and any action or recommendation of the competent person regarding the maximum allowable periods of use for vibrating equipment must be incorporated into working practices.
- 4.11 Where possible the supplier of any equipment will be required to provide vibration data, see paragraph 4.15 below. If this is not available then measurements will be taken during a simulation of the activity, provided this can be conducted in conditions as close to operational reality as practicable. The competent person is responsible for taking the measurements themselves or selecting a suitably qualified consultant to take them.
- 4.12 Those persons designated to produce or revise operational notes or other procedures must take cognisance of, and act upon, recommendations from the competent person concerning maximum allowable periods of use of equipment with vibrating characteristics.

### **Brigade supplies manager**

- 4.13 The Brigade supplies manager must establish and maintain an appropriate procedure to ensure the competent person is notified of any instance where it is considered that equipment or machinery to be purchased has a potentially injurious vibration characteristic (reference 2.3 and 2.4).
- 4.14 Before the purchase of any equipment or machinery with a potentially injurious vibration characteristic is made on behalf of the Brigade, the person intending to make the purchase is to consult with the competent person.
- 4.15 When new equipment or machinery is to be purchased, the manufacturer or supplier shall be required to provide, in writing, information to assure LFB that safety legislation in respect of

vibration output has been met, in the circumstances that LFB intends to use the equipment. Such equipment or machinery is required to be CE and/or UKCA marked and shall be accompanied by certificates of conformity and supporting technical files as applicable reference 2.4).

### **Competent person**

- 4.16 The Brigade's competent person is required to attend training in the assessment of vibration and maintain their competence in the subject. The competent person must ensure that any exposure calculations and risk assessments recorded for Brigade employees reflect the current HSE methodology.
- 4.17 The competent person is responsible for reviewing information provided by suppliers on the vibration characteristics of machinery or equipment and relating it to anticipated use within the Brigade (reference 2.3).
- 4.18 The competent person will advise if the information provided by a supplier relating to the vibration characteristics of machinery or equipment is relevant to the way the machinery or equipment is intended for use in the Brigade.
- 4.19 If the competent person discovers a situation or issue that may require the engagement of a specialist contractor to take measurements of vibration from any machine or equipment. The competent person is responsible for informing the relevant manager of the need for this assessment and providing guidance on the type of expertise necessary to address the matter.

### **Assessment and records**

- 4.20 The competent person shall be responsible for undertaking general workplace vibration assessments and determining maximum usage times for employees when appropriate (reference 2.2 and 2.3). All vibration assessments must incorporate the current HSE tools consistently across all assessments to ensure accuracy and standardisation with national best practice.
- 4.21 The competent person will ensure that records are retained even where assessments have been superseded through changes in equipment, machinery or circumstances of use for a period of forty years (reference 2.2).

### **Equipment procurement and provision**

- 4.22 No equipment may be purchased without the prior knowledge, approval and consent of the Brigade procurement manager or a manager acting on behalf of the assistant director, technical and commercial services (reference 2.4).

## Appendix 1 - Explaining the condition

### Explaining the condition

There are a number of conditions that are known to be related to the use of vibrating machinery in industry. The body can be affected by two general types of vibration: the first and most widely known affects the circulation and neurological function of the hands, the most common condition is known as vibration induced white finger (or vibration white finger [VWF]), this and similar conditions are now referred to as Hand-Arm Vibration Syndrome (HAVS). The second type is less common and affects the whole body. Both of these conditions will be discussed here in relation to Fire and Rescue Service (FRS) activities.

Apart from the occupationally related conditions discussed here, approximately 1 percent of the general population have symptoms similar to VWF/HAVS, but this is not initiated or induced by vibration exposure. Raynauds phenomenon (also known as Raynauds disease or syndrome) is probably the most common of these non-occupationally related conditions.

### Hand-Arm Vibration syndrome

HAVS has been linked to the prolonged use of hand held power tools that vibrate between 4 and 2000 Hz. The range of hand held tools that have been implicated as potentially causing this condition is very wide and includes; chain-saws, pneumatic chisels, grinders, hammer drills and percussive metal working tools; hand guided tools include lawn mowers and plate compactors; and hand fed machinery such as pedestal grinders.

Early symptoms are intermittent and include a tingling or numbness which eventually leads to temporary 'blanching' of the tips of the fingers (see photograph below). Continued exposure increases the area affected which will extend to the base of the exposed finger(s) eventually.

Other symptoms include:

- Tingling and numbness in the fingers (which can cause sleep disturbance).
- Not being able to feel things with your fingers.
- Loss of strength in your hands (you may be less able to pick up or hold heavy objects).
- In the cold and wet, the tips of your fingers going white then red and being painful on recovery.

Attacks often occur early in the morning and are made worse by a cold environment. They last for about an hour and terminate with a reactive hyperaemia (usually a red flush) and considerable pain. As well as pain during the attack there is a loss of touch, dexterity and temperature sensitivity. This leads to clumsiness and interference with the sufferer's ability to handle small objects or do simple tasks such as tie shoe laces or put a key in a lock. These symptoms also interfere with social amenity, especially with outdoor pursuits such as gardening, fishing, or outdoor sports. The condition may improve if exposure to the vibration is stopped, however, this cannot be guaranteed.

If the exposure continues a stage is reached where the numbness in the hands becomes permanent and you will not be able to feel things at all. You will have difficulty picking up small objects such as screws or nails. The vibration white finger could happen more frequently and affect more of your fingers. In extreme cases the fingers take on a blue/black cyanotic appearance at this point the condition is permanent and amputation may be the only course of action.

### Whole body vibration

Whole body vibration has been linked to sitting in/standing on vehicles with poor suspension or standing close to vibrating machinery for extended periods. It has been reported by people who have

driven farm tractors, construction equipment, buses, ships and helicopters as well as people operating static heavy machinery. The vibration in this case ranges between 1 and 80 Hz.

The symptoms include sickness, nausea and blurred vision. Continued exposure may result in disorders to the digestive, urinary, respiratory and reproductive system. The most common ailment is pain in the lower back.

### Advice

What can you do to reduce the risk of HAVS?

- Always wear gloves when handling vibrating tools this keeps your hands warm and maintains a good blood supply – **There is PPE available to protect against HAVS but it reduces dexterity and is cumbersome to use. It is better to reduce your exposure time as far as possible.**
- Giving up or cutting down on smoking because smoking reduces blood flow.
- Massaging and exercising your fingers after using vibrating tools helps maintain the blood flow.

### Always

- Check tools before using them to make sure they have been properly maintained and repaired to avoid increased vibration caused by faults or general wear.
- Make sure cutting tools are kept sharp so that they remain efficient.
- Use the right tool for the job, you will do the job more quickly and you will be exposed to less vibration.
- If there is a choice of tool, always use the tool with the lowest vibration characteristics e.g. hydraulic cutters rather than a power saw. As a general rule, noisy tools usually vibrate more, so go for the quietest tool whenever possible.
- Avoid gripping or forcing a tool or work piece harder than you have to.
- Reduce the amount of time you use a tool in one go, rotate crew members regularly – this helps keep personnel alert and focused on what they are doing as well as reducing fatigue.
- You cannot use one tool to its maximum duration then change tools – vibration exposure is cumulative.
- Learn to recognise the early signs and symptoms of HAVS and report any symptoms promptly to your line manager.

## Document history

### Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	13/03/26	SDIA	L – 26/02/26	HSWIA	12/02/26	RA	N/A
-----	----------	------	--------------	-------	----------	----	-----

### Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Page 4, para 4.13	'Authority supplies manager' changed to 'Brigade supplies manager'.	28/04/2020
Page 5, para 4.21	'Head of procurement' changed to 'Assistant director, technical and commercial services'.	
Page 8	HSWIA added. SDIA date updated.	
Throughout	This policy has been reviewed as current.	28/04/2020
Throughout	Reference to cancelled PN889 – managing attendance updated to PN1005 – supporting health and wellbeing.	28/03/2023
Throughout Page 2, para 2 Page 5, para 4	Policy has been reviewed throughout as current: Legislation/guidance amended. Included assessment/exposure tools from updated 2024 HSE guidance.	18/03/2026

### Subject list

You can find this policy under the following subjects.

Health and safety at work	Noise
Vibration	

### Freedom of Information Act exemptions

This policy/procedure has been securely marked due to:

Considered by: (responsible work team)	FOIA exemption	Security marking classification