

# CAERPHILLY COUNTY BOROUGH COUNCIL

## CORPORATE MANAGEMENT ARRANGEMENTS FOR THE CONTROL OF HAND ARM VIBRATION EXPOSURE AT WORK

<b>Version:</b>	<b>Version 1</b>
<b>Related Policy:</b>	<b>Control Of Hand-Arm Vibration Policy</b>
<b>CMA Ratified by:</b>	<b>Health and Safety Division</b>
<b>Date:</b>	<b>November 2016</b>
<b>Area Applicable:</b>	<b>All Council employees, agency staff and volunteers.</b>
<b>Review Year</b>	<b>2018</b>



## Contents

SECTION		PAGE NUMBER
SECTION 1	<a href="#">ARRANGEMENTS</a>	3
SECTION 2	<a href="#">SUPPORTING DOCUMENTS</a>	8
APPENDIX 1	VIBRATION MAGNITUDE TOOL ASSESSMENT FORM	9
APPENDIX 2	HAND ARM VIBRATION MANAGEMENT RISK ASSESSMENT	11
APPENDIX 3	INITIAL SCREENING QUESTIONNAIRE	14
APPENDIX 4	ANNUAL SCREENING QUESTIONNAIRE	17

This publication is available in Welsh, other languages or formats on request.  
Mae'r cyhoeddiad hwn ar gael yn Gymraeg ac mewn ieithiodd neu fformatau eriall ar gais.

**NOTE**

Wherever the designation "manager" is used throughout this policy, it is taken to mean Head of Service, Head Teacher, Line Manager, Supervisor and the Officer in charge or anyone who has responsibilities for employees in the course of their work.

**1.1 ARRANGEMENTS**

1.1.1 This document sets out the corporate management arrangements for implementing the Corporate Control of Hand Arm Vibration Policy, CHSU document number CHSU????.

Background

1.1.2 Hand arm vibration (HAV) exposure typically occurs during the use of hand-held power tools or holding items that vibrate and can cause significant injury, in particular;

- Tingling and numbness in the fingers (which can cause sleep disturbance).
- Not being able to feel things with your fingers (including sharp edges, heat and sense of gripping an object).
- Loss of strength in your hands (you may be less able to pick up or hold objects).
- In the cold and wet, the tips of your fingers going white then red and being painful on recovery (vibration white finger).
- If you continue to use high-vibration tools these symptoms will probably get worse, for example:
  - The numbness in your hands could become permanent and you won't 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

1.1.3 The risk of injury must be assessed, and action taken to either prevent hand arm vibration exposure completely (wherever it is reasonably practicable to do so) or reduce it to a minimum.

1.1.4 Actions may include changing working methods, equipment or processes to eliminate or reduce vibration exposure.

**1.2. Risk Assessment:**

**Step 1 - Identifying hand arm vibration problems**

1.2.1 A full risk assessment is only necessary where work is carried out which is liable to expose employees to the risk from vibration.

To help Managers decide if their work is exposing staff above the daily Exposures Action Value, EVA, a 'vibration magnitude tool assessment form' is provided in **Appendix 1**

**Step 2 – Risk Assessment**

1.2.2 The purpose of the risk assessment is to:

- Identify where there is risk to employees, so that an action plan for controlling exposure and managing the risk in accordance with the Regulations can be produced;
- Determine employees' daily vibration exposures, with enough accuracy to establish who is likely to be exposed at or above the exposure action value or exposure limit value
- Identify any additional information needed for the action plan, including how the tools / equipment or work process may be replaced or modified to control vibration exposures, whether any special training is required, who should receive health surveillance and how it will be provided.

1.2.3 The Regulations require careful consideration of employees whose health may be at particular risk from vibration due, for example, to circulatory problems, joint or muscular problems.

1.2.4 The risk assessment shall be carried out by a competent person; ie; someone who is familiar with the Control of Vibration at Work Regulations 2005. The person should have received adequate training in the use of vibration measuring equipment and/or interpretation of vibration data supplied by manufacturers and obtained from the internet. The person should be able to provide practical advice on appropriate measures to reduce the risk of vibration injury.

1.2.5 A *suitable and sufficient* risk assessment must address the actual work practices and tools being used and:

- (i) Identify all employees who are likely to be exposed to vibration;
- (ii) Where exposure is likely to be at or above the exposure limit value, contain information on vibration exposure derived from measurements (vibration surveys), supported by information on duration and type of exposure;
- (iii) Identify measures necessary to eliminate risks or reduce to a minimum.

1.2.6 To help Managers record the risk assessment and the measures necessary to eliminate risks, or reduce them to a minimum, a Hand Arm Vibration Risk Management form is provided in **Appendix 2**.

### 1.3 Maintenance:

- 1.3.1 Vibration emissions can be dramatically reduced by good tool maintenance. Managers will ensure that equipment is properly cared for and any damage reported immediately. Power tools and other work equipment will be serviced and maintained in accordance with the manufacturers' maintenance schedules to prevent unnecessarily high vibration levels and ensure efficient operation.
- 1.3.2 Staff will be reminded to report any tools perceived to be giving rise to excessive vibration to their supervisors. The supervisors will subsequently arrange for such tools to be examined and repaired where necessary.
- 1.3.3 Maintenance schedules will, where appropriate, make specific reference to inspection and repair of any anti vibration measures.

### 1.4 Procurement:

- 1.4.1 Caerphilly County Borough Council will maintain a procurement policy that prioritises low vibration tools and processes. Procurement staff engaged in the purchase of low vibration tools must be familiar with Control of Vibration at Work Regulations Practical guidance for employers Part 4: "Information from Manufacturers and Suppliers of Machinery".
- 1.4.2 Managers will ensure that procurement requests are clearly accompanied by advice that low vibration characteristics are a priority in selecting tools and equipment.
- 1.4.3 Procurement will respond positively to requests for low vibration tools and equipment, even though cheaper alternatives may be available. Selection of such tools and equipment shall be carried out in consultation with / or at the request of a competent person, eg. line manager of persons who will be exposed to vibration during their work activities and appropriate Corporate Health and Safety Officer.
- 1.4.4 As far as possible, CCBC will standardise the tools used for various tasks ie; minimise the range of tool brands and models in use.

### 1.5 Health Surveillance:

- 1.5.1 Health surveillance shall be carried out where:
- A risk assessment indicates there is a risk to health of employees who are likely to be exposed to vibration; or
  - Employees are likely to be exposed at or above an exposure action value;
  - A direct link can be established between an exposure and an identifiable disease or adverse health effect;
  - It is probable that the disease or adverse health effect may occur under the conditions of work;
  - Valid techniques are available for detecting the disease or adverse health effect.

- 1.5.2 Evidence of all employees undergoing health surveillance shall be recorded and maintained for at least 40 years.
- 1.5.3 To identify employees with symptoms that require further investigation, while avoiding unnecessary use of specialist resources, a tiered approach to health surveillance will be implemented.
- 1.5.4 Tier 1 Initial or baseline assessment.  
Before any employee is exposed to Hand Arm Vibration, Occupational Health will undertake an initial assessment, upon notification of such by the manager or as part of the pre-employment process. Initial screening questionnaire, **Appendix 3**, will be carried out using a self-administered questionnaire that includes questions about the person's medical history and is to be returned in confidence to the health professionals.
- 1.5.5 Tier 2 Annual (screening) questionnaire.  
Managers of operatives working with vibrating tools will ensure on an annual basis, their employees complete a Hand Arm Vibration screening questionnaire, **Appendix 4**, and returned to Occupational Health. This will form the routine health surveillance for employees who are at risk but have not reported any symptoms suggestive of HAVS.
- 1.5.6 Tier 3 Assessment by qualified person  
If any symptoms are reported at Tier 2 stage the operative may be required to be assessed by the Occupational Health Advisor who will then decide whether the operative is referred to the Occupational Health Physician for further assessment.
- 1.5.7 Tier 4 Formal Diagnosis  
Any formal diagnosis is made by the doctor who may also wish to refer the operative to a vascular consultant.
- 1.5.8 Occupational Health will write to the operative's manager and the health and safety division advising on fitness for continuing work involving vibrating tools and any specific measures that need to be implemented.
- 1.5.4 Temporary (agency) staff,  
Agency staff required to work in service areas where the use of vibratory equipment is required, shall complete a hand arm vibration Initial pre-exposure assessment questionnaire prior employment. The 'agency' must ensure the questionnaire is completed and should the questionnaire identify any health concerns the 'agency' must discuss with the service area manager prior to agency worker being approved for CCBC employment.
- 1.5.5 The manager shall immediately refer any employee reporting any symptoms associated with exposure to vibration to Occupational Health for assessment. Where an employee is showing symptoms associated with exposure to vibration, that employee must be removed from using vibrating equipment until the occupational assessment is completed.
- 1.6 Confirmed cases of hand arm vibration syndrome & restrictions:**
- 1.6.1 Where occupational health has diagnosed an employee with hand arm vibration syndrome or where a restriction has been placed on the employee,

health and safety in conjunction with the Manager will carry out a risk assessment detailing the controls required to comply with the recommendations / restrictions of occupational health.

### **1.7 Training, information and instruction; Supervision:**

1.7.1 Where identified by risk assessment, persons who have to use vibratory equipment must receive suitable instruction, information, training and supervision in how to operate such equipment.

1.7.2 Information, instruction and training will include:

- The health effects of vibration
- Sources of vibration
- The level of risk, where identified, whether the risk is high (above the ELV), medium (above the EAV) or low (below the EAV);
- The risk factors (eg the levels of vibration, daily exposure duration, regularity of exposure over weeks, months and years);
- How to recognise and report symptoms;
- The need for health surveillance, how it can help them remain fit for work, how it is provided, how the results will be used and the confidentiality of the results;
- Ways to minimise risk to health, including:
  - Changes to working practices to reduce vibration exposure;
  - Correct selection, use and maintenance of equipment;
  - Correct techniques for equipment use, how to reduce grip force etc;
  - Maintenance of good blood circulation at work by keeping warm, massaging fingers and where relevant, cutting down on smoking.

1.7.3 Training records will include copy of training course notes and a signed and dated declaration of attendance by operators.

1.7.4 Refresher training will be provided to ensure that members of staff having received initial training have retained their competencies.

### **1.8 Audit**

1.8.1 Managers and supervisors are required to audit compliance with the arrangements and correct employees' practice in the workplace to ensure vibration exposure control measures are properly implemented.

1.8.2 It is the responsibility of the Manager to oversee the completion and review of risk assessments and action plans for control of vibration exposure.

## **2. SUPPORTING DOCUMENTS**

2.1 Statutory Instrument 2005 -1093 "The Control of Vibration at Work Regulations 2005", ISBN 0110727673

- 2.2 L140 'Hand-Arm Vibration – The Control of Vibration at Work 2005 Regulations: Guidance on Regulations,' ISBN 0 7176 6125 3
- 2.3 L141 'Whole-Body Vibration – The Control of Vibration at Work 2005 Regulations: Guidance on Regulations,' ISBN 0 7176 6126 1
- 2.4 HSG170 'Vibration Solutions: Practical Ways to Reduce the Risk of Hand-Arm Vibration Injury', ISBN 07176095453
- 2.5 INDG404 'Drive Away Bad Backs: Advice for Mobile Machine Operators and Drivers,'
- 2.6 INDG242 'Control Back-Pain Risks From Whole-Body Vibration: Advice for Employers on the Control of Vibration at Work Regulations 2005,'
- 2.7 INDG175 'Control The Risks From Hand-Arm Vibration,'
- 2.8 INDG296 'Hand-Arm Vibration: Advice for Employees,'
- 2.9 Health and Safety Executive (HSE) website: [www.hse.gov.uk/vibration](http://www.hse.gov.uk/vibration)



**APPENDIX 1 - VIBRATION MAGNITUDE TOOL ASSESSMENT FORM**

<b>APPENDIX 1</b>	
<b>VIBRATION MAGNITUDE TOOL ASSESSMENT FORM</b>	

**ASSESSMENT OF VIBRATION MAGNITUDE AND ACTION VALUES**

\*Input Vibration Magnitude (3) Into HSE Vibration Calculator <http://www.hse.gov.uk/vibration/hav/hav.xls> to calculate columns (4) (5) and (6)

(1) MACHINE TYPE	(2) MACHINE MODEL	(3) TYPICAL VIBRATION MAGNITUDE (m/s <sup>2</sup> )	(4) Vibration Points Per Hour	(5) Time To Reach EAV 2.5 m/s <sup>2</sup>	(6) Time To Reach ELV 5.0 m/s <sup>2</sup>
<i>Pedestrian Mower</i>	<i>Etesia Pro51K</i>	<i>2.5</i>	<i>13</i>	<i>8 hours</i>	<i>.&gt;24 HOURS</i>

**APPENDIX 2 – HAND ARM VIBRATION MANAGEMENT RISK ASSESSMENT**

<b>APPENDIX 2</b>	
<b>HAND ARM VIBRATION MANAGEMENT RISK ASSESSMENT</b>	

**Section 1 – Identify Hazards & Persons Exposed**

<b>ACTIVITY:</b>				
<b>PERSONS/TEAMS EXPOSED:</b>				
<b>Tool Used</b>	<b>Points Per Hour</b>	<b>Typical daily Trigger Time (must be previously assessed for this activity)</b>	<b>Activity Points Total</b>	<b>Daily Points Total 100pts = EAV 400 pts = ELV</b>

Section 2 – Control Measures	Responsible Person
<b>Activity Based Control Measures e.g. job rotation:</b>	
<b>Equipment Based Control Measures e.g. low vibration procurement, maintenance:</b>	
<b>Personal Control Measures e.g. training, health surveillance</b>	

**APPENDIX 3 – INITIAL SCREENING QUESTIONNAIRE**

**Initial Screening questionnaire for workers using hand-held vibrating tools, hand-guided vibrating machines and hand-fed vibrating machines**

Date: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Occupation: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_  
 National Insurance Number: \_\_\_\_\_  
 Employee Number: \_\_\_\_\_  
 Supervisors Name: \_\_\_\_\_

Have you ever used hand-held vibrating tools, machines or hand-fed process in your previous job/s? Y/N

If **YES**:

List year of first exposure \_\_\_\_\_  
 When was the first time you used them \_\_\_\_\_

(detail work history overleaf)

- 1) Do you have any tingling of the fingers lasting more than 20 minutes after using vibrating equipment? Y/N
- 2) Do you have tingling of the fingers at any other time? Y/N
- 3) Do you wake at night with pain, tingling or numbness in your hand or wrist? Y/N
- 4) Do one or more of your fingers go numb more than 20 minutes after using vibrating equipment? Y/N
- 5) Have your fingers gone white on cold exposure? Y/N

\*Whiteness means a clear discoloration of the fingers with a sharp edge, usually followed by a red flush



**APPENDIX 2**

- 6) If Yes to 5, do you have difficulty re-warming them when leaving the cold? Y/N
- 7) Do your fingers go white at any other time? Y/N
- 8) Are you experiencing any other problems with the muscles or joints of the hands or arms? Y/N
- 9) Do you have difficulty picking up very small objects, e.g. screws or buttons, or opening tight jars? Y/N
- 10) Have you ever had a neck, arm or hand injury or operation? Y/N  
If so give details: \_\_\_\_\_
- 11) Have you ever had any serious diseases of joints, skin, nerves, heart or blood vessels? Y/N  
If so give details: \_\_\_\_\_
- 12) Are you on any long term medication? Y/N  
If so give details: \_\_\_\_\_

**OCCUPATIONAL HISTORY**

Dates	Job Title
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

**I certify that all the answers given above are true to the best of my knowledge and belief.**

Signed \_\_\_\_\_ Date \_\_\_\_\_

**RETURN IN CONFIDENCE TO:**

\_\_\_\_\_



**APPENDIX 4 – ANNUAL SCREENING QUESTIONNAIRE**

**Annual Screening questionnaire for workers using hand-held vibrating tools, hand-guided vibrating machines and hand-fed vibrating machines**

Date: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Occupation: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_  
 National Insurance Number: \_\_\_\_\_  
 Employee Number: \_\_\_\_\_  
 Supervisor's Name: \_\_\_\_\_  
 Date of Previous Screening: \_\_\_\_\_

Have you been using hand-held vibrating tools, machines or hand-fed process since your last assessment? (detail work history overleaf) Y/N

If **NO**, or more than 2 years since your last exposure, please return the form to your supervisor. There is no need to answer further questions

If **YES**:

- 1) Do you have any numbness or tingling of the fingers lasting more than 20 minutes after using vibrating equipment? Y/N
- 2) Do you have any numbness or tingling of the fingers at any other time? Y/N
- 3) Do you wake at night with pain, tingling or numbness in your hand or wrist? Y/N
- 4) Have any of your fingers gone white on cold exposure? Y/N

\*Whiteness means a clear discoloration of the fingers with a sharp edge, usually followed by a red flush



- 5) Have you noticed any change in your response to your tolerance of working outdoors in the cold? Y/N
- 6) Are you experiencing any other problems in your hands or arms? Y/N
- 7) Do you have difficulty picking up very small objects, e.g. screws or buttons, or opening tight jars? Y/N

8) Has anything changed about your health since the last assessment Y/N

**Hand-arm vibration syndrome (HAVS):**

- Is a disorder which affects the blood vessels, nerves, muscles and joints of the hand, wrist and arm
- Can become severely disabling if ignored, and
- Its best known form is vibration white finger (VWF) which can be triggered by cold or wet weather and can cause severe pain in the affected fingers

**Signs to look out for in hand-arm vibration syndrome:**

- Tingling and numbness in the fingers
- In the cold and wet, fingers go white, then blue, then red and are painful
- You can't feel things with your fingers
- Pain, tingling or numbness in your hands, wrists and arms
- Loss of strength in hands

**OCCUPATIONAL HISTORY**

Dates	Job Title
.....	.....
.....	.....
.....	.....
.....	.....

**I certify that all the answers given above are true to the best of my knowledge and belief.**

Signed \_\_\_\_\_ Date \_\_\_\_\_

**RETURN IN CONFIDENCE TO:**

\_\_\_\_\_