CONTROL OF VIBRATION AT WORK

Health and Safety Arrangement

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Introduction

The Control of Vibration at Work Regulations (CVWR) require the University to assess the risks from equipment, machinery and vehicles used for work-related purposes, and reduce or eliminate these risks so far as is reasonably practicable. The primary aim of this arrangement is to provide information on the responsibilities and requirements these regulations place on the University to protect staff, students, visitors and contractors who may be placed at risk from the ill health effects of vibration.

Many work-related activities have the potential to pose health risks to staff and students due to vibration exposure. For example, during the use of handheld tools, equipment and machinery, vibration is transmitted into the hands and arms of the user.

Excessive exposure to vibration can lead to physical damage to nerves, blood vessels, muscles and joints of the hand, wrist and arm, which can cause Hand-Arm Vibration Syndrome (HAVS). This can impact an affected persons job, studies and everyday life, causing difficulties carrying out everyday tasks, with the damage being largely irreversible.

Scope

This arrangement applies across all areas of the University, the services that it provides and to all staff contracted to work at the University.

Definitions

Key terms are used throughout this arrangement. The definitions of these are as follows:

- **Hand Arm Vibration (HAV) –** Mechanical vibration transmitted from hand-held power tools used for work purposes into an employee's hands and arms, causing significant ill health.
- **Whole Body Vibration (WBV) –** Mechanical vibration transmitted into the body of employees when seated or standing, through the supporting surface of a work vehicle, causing health risks such as back pain.
- **Exposure Action Value (EAV) –** The daily amount of vibration exposure, above which employers are required to act to control exposure. For hand arm vibration, EAV is a daily exposure of 2.5 m/s^2.

- **Exposure Limit Value (ELV) –** The maximum amount of vibration an employee may be exposed to on any single day. For hand arm vibration, the ELV is a daily exposure of 5m/s^2. This represents a high risk, above which employees should not be exposed.

Responsibilities

Health, Safety and Compliance

The Health, Safety and Compliance Team are responsible for:

1.1. Providing the appropriate support, advice and guidance regarding vibration risks throughout the University.

1.2. Review vibration at work arrangements and protocols at least every three years, or more frequently if necessary.

1.3. Periodic monitoring of vibration equipment within services and schools to ensure that suitable and sufficient measures are in place to control vibration hazards.

Occupational Health

Where there is a health problem, which may have been caused or exacerbated by work, Occupational Health should be contacted. Occupational Health is provided by Cordell Health and must ensure that:

1.4. Advice is provided on rehabilitation following sickness / ill health absence of employees where required.

1.5. Ensuring that health surveillance records are confidentially maintained.

1.6. Notifying line managers of health surveillance results and any resulting recommendations.

Deans, Directors, Associate Directors and Heads

Senior Managers are responsible for ensuring:

1.7. This arrangement is implemented by their respective Faculties, Schools and / or Services.

1.8. Systems, processes and resources are in place and monitored in relation to vibration hazards.

1.9. Managers, staff and students are aware of their responsibilities in relation to this arrangement.

1.10. Appropriate reporting of incidents and issues through the health and safety framework.

1.11. Relevant faulty equipment or machinery is removed and replaced as required.

Managers and Supervisors

Managers and Supervisors are responsible for ensuring they are familiar with and adhere to this arrangement and Health and Safety Executive (HSE) Guidance. In summary, they are responsible for:

1.12. Ensuring this arrangement is effectively implemented in the area that they manage.

1.13. Ensuring appropriate risk assessment is carried out and controls are put in place to mitigate vibration risks so far as is reasonably practicable.

1.14. Ensure regular maintenance, inspection and user checks are carried out on all related equipment and machinery, as required.

1.15. Ensuring safety devices, systems or equipment are not interfered with.

1.16. Ensuring all employees and students are aware, through the provision of suitable and sufficient information, instruction, supervision and training, of the actions required to ensure safe working practices are followed.

1.17. If staff or students are identified as requiring health surveillance for vibration risks, it is the responsibility of Line Managers / Supervisors to refer them to the University's Occupational Health Service (Cordell Health).

Health, Safety and Wellbeing Coordinators

Health, Safety and Wellbeing Coordinators are responsible for ensuring:

1.18. They provide advice, support and assistance in relation to vibration hazards.

Employees/Students

All University staff and students must ensure that:

1.19. They comply with instruction, information and training provided.

1.20. Adhere to the relevant risk assessments as appropriate.

1.21. They undertake any pre-use inspections of work equipment as required.

1.22. Any defects in equipment or machinery are reported to their line manager or tutor and they

immediately stop using the equipment or machinery if unsafe.

Arrangements

Risk Assessment

The purpose of risk assessing is to enable managers to make an informed decision about which measures should be applied to prevent or adequately control the exposure of employees and students to Hand Arm Vibration or Whole-Body Vibration.

When conducting a risk assessment on vibration hazards, the following steps should be applied:

1. Identify all existing handheld powered tools, equipment and machinery which potentially pose a risk of hand-arm vibration or whole-body vibration.
2. Review and observe the conditions under which these tools, equipment and machinery are used, to obtain a true and accurate representation of the nature of the work undertaken.
3. Identify the maximum duration of the use of these tools, equipment or machinery in any working day (Guidance in Appendix 1 of HSE Guidance L140 assists with this).
4. Assess the magnitude of vibration from each piece of equipment used. This information must be provided by the manufacturer. However, manufacturer's data may result from testing under specific controlled conditions, which are different from normal working practices. It may therefore be necessary to acquire additional information from on-site measuring before prolonged use. If this is required, please contact the Health, Safety and Compliance Team to organise.
5. Consider individual factors, such as pre-existing health conditions, which may further increase an employee or student's risk from vibration exposure.
6. Record the findings of your risk assessment using the risk assessment template, found **here.**

The risk assessment should detail the measures in place to reduce the risk from vibration exposure, ensuring it does not exceed the Exposure Limit Value (ELV), and where applicable, may also include an Action Plan indicating any further control measures planned. Vibration risk assessments may be a standalone document, or can be incorporated into task specific risk assessments for a process or a piece of equipment, tool or machinery. These risk assessments should be reviewed whenever there is a change in vibration exposure, or otherwise at an agreed time interval.

Purchasing New Equipment

When planning to purchase equipment, first consider other methods of work which can eliminate or reduce exposure to vibration, such as automation or mechanisation of work rather than using hand-operated tools or machinery.

Whenever new equipment is to be purchased, the supplier's information should be checked in advance, and every effort made to ensure that equipment with the lower vibration levels and best protection is purchased. It is also important to consider that manufacturer's data and measurements may not be sustainable during normal working practices, and therefore may require additional on-site testing before prolonged use. If further measurement is required, please contact the Health, Safety and Compliance Team to organise.

Reducing Vibration Risk

Where the Exposure Action Value (EAV) is likely to be reached or exceeded, controls should be applied to reduce the exposure to as low a level as is reasonably practicable as appropriate to the activity taking place. Typical control measures include:

- Using other work methods to eliminate or reduce exposure to vibration.
- When ordering new equipment, choose equipment with appropriate ergonomic design which will produce the least possible amount of vibration.
- The implementation of an appropriate maintenance schedule for workplace tools, equipment and machinery.
- The provision of information, instruction and training for specific tools, equipment and machinery, to ensure they are used correctly and safely by staff and students.
- The limitation of the duration and magnitude of exposure to vibration. For example, through introduction of work schedules with adequate rest periods.
- The provision of PPE to protect employees and students from cold and damp, if applicable.

Maintenance of Work Equipment

All power tools, equipment and machinery used for University purposes must be inspected regularly for damage, and serviced / maintained in accordance with the manufacturer's / supplier's advice. The purpose of this is to ensure that equipment is maintained in its most efficient state, and optimum vibration performance is sustained throughout its operational use.

Staff and students must be made aware that if at any point they consider the performance of a piece of equipment, tool or machinery to have deteriorated with regards to vibration, this must be promptly reported to line management so further investigation can be made.

Health Surveillance

The aim of health surveillance is to identify any member of staff or student who may be showing signs of HAVS at an early stage. It is the responsibility of Line Managers / Supervisors to identify staff and students requiring health surveillance for vibration risks through the risk assessment process, and ensure they are referred to the University Occupational Health Service (Cordell Health).

Individuals who may be considered to be particularly sensitive to vibration include those with existing HAVS; other conditions of the hands, arms, wrists or shoulders; or with conditions affecting the circulation such as diabetes or nerve disorders (such as carpel tunnel syndrome).

Training Requirements

All employees and students should be given appropriate training for the use of handheld tools, equipment and machinery that may expose them to vibration. This should include periodic supervision to identify working practices which may increase the risk to an individual, such as gripping equipment too tightly.

Training of students should be conducted by the relevant experienced staff members. If training is required for staff members, this can be arranged through the Health, Safety and Compliance Team. The following information should be included within training:

- Specific pieces of work equipment and machinery that pose vibration risks, including their respective levels of risk.
- How their personal daily exposure compares to the Exposure Action and Limit Values.
- The symptoms of ill health to look out for, in addition to who they should report them to if

experiencing these symptoms.

- Conducting a risk assessment, including informing of the control measures in place to minimise risks.
- The personal protective equipment (PPE) that is provided and when this should be used.
- The health surveillance that is provided, how this is carried out, and why this is important.
- The specific duties for supervisors and managers in their respective roles, such as maintenance of equipment, restriction and exposure times.
- The specific duties on employees, such as following instructions and safe working practices, reporting problems with equipment, and co-operating with risk assessments.

Monitoring Compliance

Element to be monitored	Lead	Tool	Frequency	Reporting Arrangements
Responsibilities as per arrangement	Line Manager(s)	Health and Safety Executive PDR Process (1-2-1s) Auditing and inspection Risk Assessment	Ongoing On intervention Annually As per programme Determined by risk	Faculty Health, Safety and Wellbeing Committee(s) University Health, Safety and Wellbeing Committee Escalation via management
Arrangement Suitability and Effectiveness	Health, Safety and Compliance Team	Audit and Inspection, Staff News, H&S Newsletters, Communications. Risk assessments and incident reports.	Periodically at least every three years or following a significant change or incident.	University Health Safety and Wellbeing Report. Audit Reports. Incident Reports.
Arrangement Implementation	Health, Safety and Compliance Team	Staff News, H&S Newsletter, email to HSW Coordinators. All details including risk assessment and trolley tagging procedure are covered in the training provision.	When arrangement has been approved by the University Health Safety and Wellbeing Committee. Ongoing.	Faculty Health, Safety and Wellbeing Committee(s) University Health, Safety and Wellbeing Committee Escalation via management
Incidents and complaints	Senior Manager / Managers in conjunction with Health, Safety and Compliance Team	Inspections, incident reviews and investigation. Risk Register(s)	When reported; ad-hoc and periodically when necessary.	Escalate concerns through Faculty Health, Safety and Wellbeing Committee or directly with Health, Safety and Compliance Team for Professional Services.

Legislation

The work equipment provided by the University may fall under more than one set of regulations. The relevant key sets of regulations are as follows:

- The Health and Safety at Work Act (HASAWA)
- The Management of Health and Safety at Work Regulations (MHSWR)
- The Control of Vibration at Work Regulations (CVWR)
- The Provision and Use of Work Equipment Regulations (PUWER)
- The Personal Protective Equipment at Work Regulations
- The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)

Associated University Documents

University Arrangements:

This arrangement should be read in conjunction with the following University Arrangements:

- Incident Reporting

University Forms:

This Arrangement should be read in conjunction with the following University forms:

- Job Hazard Form
- University Induction Checklist

Health and Safety Executive Documents

The Health and Safety Executive has produced the following guidance documents:

- L140 – Hand-arm Vibration – The control of Vibration at Work Regulations
- INDG175 – Hand-arm Vibration at Work
- HSG60 – Upper Limb Disorders in the Workplace

Document Control

This arrangement is issued and managed by the Health, Safety and Compliance Team.

Change Record

Version	Author	Date	Amendment
1.0	Anthony James	April 2024	New Arrangement

Reviewers / Contributors

Version	Name	Role	Date
1.0	Charlotte Downs	Health Safety and Wellbeing Assurance Manager	May 2024
1.0	Jonathan Latter	Deputy Health, Safety and Compliance Manager	Nov 2024