

<b>Policy Hierarchy link</b>	<a href="#">Work Health and Safety Act 2011</a> <a href="#">Work Health and Safety Regulation 2011</a> <a href="#">Work Health and Safety Policy</a>		
<b>Responsible Officer</b>	Director, UNSW Safety and Sustainability		
<b>Contact Officer</b>	Manager, UNSW Health & Safety		
<b>Superseded Documents</b>	OHS432 Manual Handling Guideline HS432 Hazardous Manual Tasks Procedure v2.1		
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<b>Associated Documents</b>	Hazard Manual Tasks Code of Practice <a href="#">HS705 Guide to Office Workstation Set-up</a> <a href="#">HS902 Manual task risk management form</a>		
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## 1. Purpose and Scope

This procedure outlines how UNSW will comply with its legal requirement under the Workplace Health and Safety Act and Regulation 2011 to identify, assess and control hazardous manual tasks. This procedure ensures that there is a consistent approach across the university.

This procedure applies to manual activities undertaken by UNSW workers.

For repetitive computing tasks refer to the Guide to Office Workstation Set-up (HS705).

## 2. Definitions

**Hazardous Manual task:** A hazardous manual task means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:

- repetitive or sustained force
- high or sudden force
- repetitive movement
- sustained or awkward posture
- exposure to vibration.

These factors (known as characteristics of a hazardous manual task) directly stress the body and can lead to injury.

**Musculoskeletal disorders (MSDs):** A musculoskeletal disorder means an injury to, or a disease of, the musculoskeletal system, whether occurring suddenly or over time. It does not include an injury caused by crushing,

entrapment (such as fractures and dislocations) or cutting resulting from the mechanical operation of plant.

MSDs may include conditions such as:

- sprains and strains of muscles, ligaments and tendons
- back injuries, including damage to the muscles, tendons, ligaments, spinal discs, nerves, joints and bones
- joint and bone injuries or degeneration, including injuries to the shoulder, elbow, wrist, hip, knee, ankle, hands and feet
- nerve injuries or compression (e.g. carpal tunnel syndrome)
- muscular and vascular disorders as a result of hand-arm vibration
- soft tissue hernias
- chronic pain.

MSDs occur in two ways:

- gradual wear and tear to joints, ligaments, muscles and inter-vertebral discs caused by repeated or continuous use of the same body parts, including static body positions
- sudden damage caused by strenuous activity, or unexpected movements such as when loads being handled move or change position suddenly.

### **3. Procedure**

The risk management process for manual tasks involves the identification of hazards, assessing the risks, implementation of controls and review of control measures (See Appendix B).

#### **3.1 Identify Hazardous manual tasks**

The first step in managing risks from carrying out manual tasks is to identify those tasks that have the potential to cause musculoskeletal disorders (MSDs).

Hazardous manual tasks are ones that involve involving one or more of the following:

- repetitive or sustained force
- high or sudden force
- repetitive movement
- sustained or awkward posture
- exposure to vibration.

Hazards that arise from manual tasks generally involve interaction between a worker and:

- the work tasks and how they are performed
- the tools, equipment and objects handled
- the physical work environment

##### **3.1.1 How to identify hazardous manual tasks**

Manual task hazards can be identified by:

- Reviewing the duties in position descriptions to identify manual task risks.
- Consulting with workers/students who are involved in manual tasks to find out what hazards are involved. For example, you could ask workers to identify tasks that:
  - are difficult to do (or appear harder than they should be)
  - are very tiring (muscle fatigue reduces work capacity)
  - are awkward or dangerous (for example, difficulty controlling loads)
  - cause discomfort.
- Analysing HS and Workers Compensation statistics to find out the number of manual task injuries, the cause of these injuries and where they are coming from

- Observe how workplace equipment is set up, and the associated workflows between different areas
- Observe workers performing manual tasks, particularly tasks that require awkward postures, movements and repetitive movements
- Perform Workplace Inspections to observe how tools, materials and equipment are stored
- Investigating manual task incidents to identify what caused the injury

### 3.2 Assessing the risk of Hazardous manual tasks

A risk assessment allows you to examine the characteristics of a manual task in more detail.

You should carry out a risk assessment for any manual tasks that you have identified as being hazardous, unless the risk is well-known and you know how to control it. A risk assessment can help you determine:

- which postures, movements and forces of the task pose a risk
- where during the task they pose a risk
- why they are occurring
- what needs to be fixed

When conducting a risk assessment of manual tasks the following factors must be taken into consideration.

- The posture of the worker
- The forces exerted by the worker and any forces exerted on the worker by the object, person or animal
- Speed of movements by the worker
- Exposure of the worker to vibration; and
- The duration and frequency of the task

You must also take into consideration the possible sources of the risks including:

- The layout or design of the work area. For example is the area set up to prevent awkward postures.
- The work environment. Sources of risk in a work environment include temperature, humidity, floor surfaces, lighting and obstructions.
- Consider the nature, size, weight or number of persons, animals or things handled including any tools used ; and
- Work organisation and the system of work. For example the pace of the work and time constraints.

These sources of risk can also make the task more difficult to perform and therefore increase the risk of MSD.

The Hazardous Manual Task Risk Management Form (HS902) can be used to assist in identifying and controlling manual handling risks.

### 3.3 Controlling the risks

You must aim to eliminate any hazardous manual tasks and any associated risks. If it is not reasonably practicable to eliminate the risk then controls must be put in place to minimise the risk.

Control measures should be aimed at eliminating or minimising the frequency, magnitude and duration of movements, forces and postures by changing the source of risk: the work area, tool, load, environment, method of handling and/or the way work is organised.

Hierarchy of control		Examples of control measures
Level 1	Elimination	<ul style="list-style-type: none"> <li>• Automate the manual task (such as using remote controls)</li> <li>• Deliver goods directly to the point of use to eliminate multiple handling</li> </ul>

Level 2	Substitution	<ul style="list-style-type: none"> <li>• Replace heavy items with those that are lighter, smaller and/or easier to handle</li> <li>• Replace hand tools with power tools to reduce the level of force required to do the task</li> </ul>
	Isolation	<ul style="list-style-type: none"> <li>• Isolate vibrating machinery from the user, for example by providing fully independent seating on mobile plant</li> </ul>
	Engineering	<ul style="list-style-type: none"> <li>• Use mechanical lifting aids</li> <li>• Provide workstations that are height adjustable</li> </ul>
Level 3	Administrative	<ul style="list-style-type: none"> <li>• Rotate workers between different tasks</li> <li>• Train workers to use control measures implemented when carrying out normal tasks</li> </ul>
	Personal protective equipment	<ul style="list-style-type: none"> <li>• Heat resistant gloves for handling hot items</li> <li>• Shock absorbent shoes for work on hard concrete floors</li> </ul>

### 3.3.1 Training

Training in the type of control measures implemented should be provided during induction into a new job and as part of on-going training needs. Training should be provided to:

- workers required to carry out, supervise or manage hazardous manual tasks

The training should include information on:

- manual task risk management, including the characteristics of hazardous manual tasks
- specific manual task risks and the measures in place to control them
- how to perform manual tasks safely, including the use of mechanical aids, tools, equipment and safe work procedures
- how to report a problem or maintenance issues.

### 3.4 Review controls

Control measures that have been implemented must be reviewed and, if necessary, revised to make sure they work as planned and to maintain a work environment that is without risks to health and safety.

Control measures may be reviewed using the same methods as the initial hazard identification step. Consult your workers involved in the manual task and their health and safety representatives and consider the following:

- Are the control measures working effectively in both their design and operation, without creating new risks?
- Are workers actively involved in the risk management process? Are they openly raising health and safety concerns and reporting problems promptly?
- Have new work methods or new equipment reduced physical strain or difficulty?
- Has instruction and training on hazardous manual tasks and the implemented control measures been successful?
- Is the frequency and severity of MSDs reducing over time?
- Is an alteration planned to any structure, plant or process that is likely to result in a worker being exposed to a hazardous manual task?
- Has an incident occurred as a result of a worker being exposed to a hazardous manual task?
- If new information becomes available, does it indicate current controls may no longer be the most effective?

If problems are found, go back through the risk management steps, review your information and make further decisions about risk control.

## 4. Review & History

This document will be reviewed in accordance with the HSMS Review Procedure.

### Appendix A: History

The authorisation and amendment history for this document must be listed in the following table. Refer to information about [Version Control](#) on the Policy website.

Version	Authorised by	Approval Date	Effective Date	Sections modified
1.0	Director of Human Resources	01/01/2007	01/01/2007	New Document
1.3	Adam Janssen	13/10/2010	13/10/2010	Links updated
2.0	Director of Human Resources	02/04/2013	02/04/2013	Document changed from guideline to procedure in accordance to new WHS act and Regulation 2011
2.1	Director, UNSW Safety and Sustainability	30 April 2014	30 April 2014	Reviewed for administrative updates
2.2	Director, UNSW Safety and Sustainability	29 February 2016	29 February 2016	Reviewed for administrative updates

**APPENDIX B: RISK MANAGEMENT PROCESS FOR MANUAL TASKS**  
 (Source: WorkSafe Tasmania, Hazardous Manual Tasks Codes of Practice)

