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1 Scope

The University will fully comply with the Manual Handling Operations Regulations 1992 (as amended) and will so far as is reasonably practicable:

- Avoid manual handling operations where a significant risk of injury could occur.
- Design and provide safe and ergonomically suitable workplace environments.
- Assess the risks associated with manual handling activities and eliminate or reduce these to a tolerable level.
- Introduce appropriate measures to reduce the risk of injury (provide equipment to enable manual handling activities to be undertaken safely).
- Provide suitable and sufficient supervision, training (including periodic refresher training) and information to all staff involved in manual handling operations.
- Reduce the hazards to health associated with the manual handling of loads.

2 Introduction

Incorrect manual handling is one of the most common causes of injury at work. It causes work-related musculoskeletal disorders (MSDs) which account for over a third of all workplace injuries. Latest HSE statistics (for 2016/2017) show over 507,000 cases of MSD's in the UK equating to 8.9 million days lost.

This Code of Practice is intended to help reduce the risk of manual handling injuries and promote good practice in all lifting, handling and carrying operations.

3 Definition of Manual Handling

The Manual Handling Operations Regulations 1992 (as amended), apply to a wide range of manual handling activities, including lifting, lowering, pushing, pulling or carrying.

'Manual handling of loads' means any transporting or supporting of a load by one or more persons involving the risk of injury.

4 Applicable Legislation

This legislation places duties on the University towards employees and those potentially affected by its activities when planning or undertaking any type of manual handling activity.

- The Manual Handling Operations Regulations 1992, (as amended in 2002).
- The Health and Safety at Work Act etc. 1974.
- The Management of Health and Safety at Work Regulations 1999.
- The Provision and Use of Work Equipment Regulations 1998 (PUWER).
- The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

The Manual Handling Operations Regulations 1992 (as amended) outlines the requirement to:

- **Avoid** the need for hazardous manual handling, so far as is reasonably practicable.
- **Assess** the risk of injury from any hazardous manual handling that cannot be avoided.
- **Reduce** the risk of injury from hazardous manual handling, so far as is reasonably practicable.

5 Responsibilities

Pro Vice-Chancellors and Service Directors must ensure adequate arrangements are in place to:

- Ensure that manual handling tasks are taken into account during risk assessment activities.
- Reduce the need for manual handling as far as reasonably practicable in areas under their control.
- Ensure that suitable and sufficient resources are available to enable manual handling tasks to be carried out with minimal risk.
- Provide appropriate and suitable equipment such as trolleys or sack trucks to minimise the risk of injury through manual handling.
- Provide suitable personal protective equipment if required.
- Refer individuals to occupational health if informed of health problems related to manual handling.
- Arrange relevant training for individuals or groups where required.

Northumbria University Staff Must:

- Use any equipment provided as aids to manual handling.
- Attend manual handling training if required.
- Bring any problems relating to manual handling to the attention of Line Managers.
- Not attempt to lift or move any loads which may be beyond their capabilities.
- Undertake risk assessments relevant to their activities.
- Inform their manager of any health problem or condition that might affect their ability to handle loads.
- Comply with any health advice given by Occupational Health.

Students Must:

- Take care of their own safety, and that of others when carrying out manual handling duties.
- Seek advice from their Tutors/ Technicians relating to Manual Handling Operations.
- Utilise any equipment provided for the movement and transportation of goods and objects.

The Health and Safety Central Team Will:

- Provide advice and guidance on manual handling issues.
- Provide manual handling training on HR's request.
- Review manual handling procedures as necessary to ensure compliance with current legislation.

6 Manual Handling Risk Assessment

Risk assessment for manual handling operations (MHO) and tasks

The [General Risk Assessment Form](#) will help identify MHO related hazards and the controls to be used. Where a more detailed assessment is required, the [Manual Handling Assessment Checklist](#) may be utilised.

The steps to consider when carrying out a MH assessment are commonly referred to as TILE

- **Task** Is it a simple or complex task, repetitive?
- **Individual** The physical capabilities of the person, health condition?
- **Load** Is it irregular shaped, bulky, heavy, hot, sharp or unstable?
- **Environment** Indoor/outdoor, sufficiently lit, wet, cold, sloping uneven surface?

Ways of reducing risk from manual handling operations using TILE

Task

Issues to look for - Does the task involve:	Ways of reducing the risk of injury - Can you:
<ul style="list-style-type: none"> • holding loads away from the body? • twisting, stooping or reaching upwards? • large vertical movement? • long carrying distances? • strenuous pushing or pulling? • repetitive handling? • insufficient rest or recovery time? • A work rate imposed by a process? 	<ul style="list-style-type: none"> • use a lifting aid? • improve workplace layout? • reduce the amount of twisting and stooping? • avoid lifting from floor level or above? shoulder height, especially heavy loads? • reduce carrying distances? • avoid repetitive handling? • vary the work, allowing one set of muscles to rest while another is used? • push rather than pull?

Individual capacity

Issues to look for - Does the job:	Ways of reducing the risk of injury – Can you:
<ul style="list-style-type: none"> • require unusual capability, e.g. above average strength or agility? • endanger those with a health problem or learning / physical disability? • endanger pregnant women? • call for special information or training? 	<ul style="list-style-type: none"> • pay particular attention to those who have a physical weakness? • get advice from the Occupational Health? • take extra care of pregnant workers? • supply more information about the range of tasks they are likely to face? • provide more training?

Loads

Issues to look for - The loads, are they:	Ways of reducing the risk of injury - Can the load:
<ul style="list-style-type: none"> • heavy or bulky? • difficult to grasp? • unstable or likely to move unpredictably? • harmful, e.g. hot or sharp? • awkwardly stacked? • too large for the handler to see over? 	<ul style="list-style-type: none"> • be lighter or less bulky? • be easier to grasp? • more stable? • Wear correct PPE • evenly stacked? • If the load comes from elsewhere, have you asked the supplier to help, e.g. by providing handles or smaller packages?

Environment

Issues to look for - Are there:	Ways of reducing the risk of injury - Can you :
<ul style="list-style-type: none"> • restrictions on posture? • bumpy, obstructed or slippery floors? variations in floor levels? • hot/cold or humid conditions? • gusts of wind or strong air movements? • poor lighting conditions? • restrictions on movement from clothes or personal protective equipment (PPE)? 	<ul style="list-style-type: none"> • remove obstructions to free movement? provide better flooring? • avoid steps to steep ramps? • prevent extremes of hot or cold? • Postpone lift until conditions improve • Improve lighting? • provide PPE that is less restrictive? • ensure that employees' clothing and footwear is suitable for their work?

6.1 Step 1 - Identify manual handling operations

Those carrying out risk assessment require knowledge of the work area and the types of task involved, and consult personnel who undertake the tasks, to identify specific issues.

Both regular and irregular activities should be taken into account.

Regular activities – where staff are exposed to frequent and / or repetitive manual handling hazards.

Irregular activities – These activities may present a higher risk as they may take place out of hours and may not be adequately controlled.

6.2 Step 2 - Identify those carrying out manual handling operations

Any staff that might be expected to carry out manual handling operations, should receive suitable training, instruction and adequate supervision in order to enable them to carry out manual handling operations safely and effectively. Also to use the correct lifting and handling techniques and appropriate equipment where necessary.

Individuals have different physical capabilities and characteristics and these should be taken into account when assessing the task: pre-existing physical conditions, or changes of capabilities such as a new or expectant mother; a person recuperating from a recent surgical operation; anyone suffering from a recent back injury, or a new health condition that could affect a person's ability to lift safely.

6.3 Step 3 - Evaluate risk from manual handling operations

Evaluate the level of risk from the manual handling operation(s), and if any controls are in place to reduce the level of risk; If these controls appear inadequate, then a more detailed risk (manual handling) assessment may be required.

Risk of injury can be reduced by consideration of the following hierarchy of control options;

- **Eliminating** the need for handling at source (deliver goods by supplier to point of use).
- **Automating or mechanising** the task; e.g. Gas stored in a tank and piped into a lab rather use of cylinders. Using pallet trucks, and trollies to transfer loads rather than carrying them.
- **Re-arrange** the workplace, e.g. store heavier items at waist height; store more commonly used items near to point of use; purchase smaller unit sizes if possible.
- Provide **training, instruction and supervision** to staff in moving and handling techniques so as to carry out manual handling operations more safely and more readily identify hazards.

6.4 Step 4 - Implement the results of the evaluation

If remedial actions are required; the following points should be implemented:

- Remedial steps should be listed in order of priority.
- A responsible person with the appropriate authority should implement any controls.
- A target date should be set for implementation of those controls. Follow up to ensure completion.
- Staff should then be informed of the results, the procedures to be followed and the supervisory requirements (if any).

6.5 Step 5 - Record the results of the manual handling risk assessment

All significant findings from the risk assessment must be recorded. The risk assessment form should include the following details:

- name and details of the person carrying out the assessment.
- the significant findings of the assessment.
- any recommended remedial actions.
- the person responsible for carrying out the recommended remedial actions.
- the date of the assessment and the review date.

7 Information Instruction and Training

The E-media interactive manual handling training programme is accessed through My HR. If practical training is required, contact HR or the Central Health & Safety Team to arrange.

<https://one.northumbria.ac.uk/hr/home/peopledevelopment/core/Pages/MH.aspx>

The HSE Manual handling toolkit

The HSE has produced a series of tools that help assess some of the risks involved in manual handling.

These tools include:

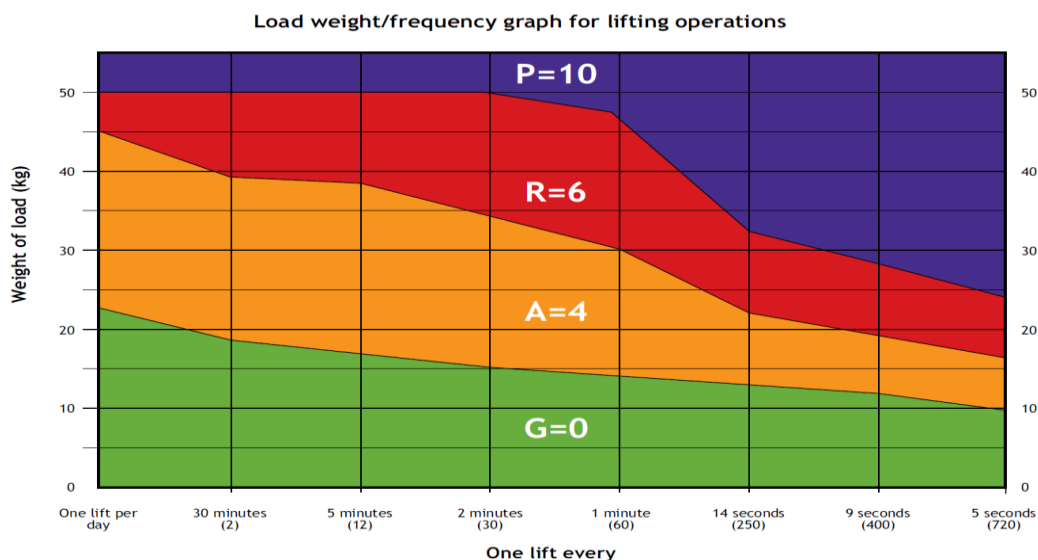
- The **MAC** tool for most manual handling tasks.
- The **ART** tool for assessing repetitive movements.
- The **RAPP** tool for pushing and pulling operations.

Check the HSE website here for these assessment tools (full instructions included) - [Toolkit](#).

The tool allows users to estimate the risk factors when undertaking MH operations

The MAC tool graph is shown below – estimating load against frequency

Any assessment tasks which fall into the high risk area (Purple) should be stopped until adequate controls are put in place



The **MAC** tool can be used for estimating lifting, carrying and team operations and estimating how many lifts per hour would be applicable for a specified load.

The **RAPP** assessment is used for tasks involving pulling or pushing.

8 Appendix 1 – Relevant Legislation / Regulations / Guidance

- 1.1 The **Manual Handling Operations Regulations 1992 - HSE L23** guidance can be found [here](#). (4th edition 2016). The regulations require that employers shall avoid, assess and reduce the risk of injury from manual handling activities.
Manual Handling at Work – A Brief Guide (INDG 143 rev2) can be found [here](#).
Best Use of Lifting and Handling Aids – HSE indg 398 can be found [here](#).

- 1.2 The **Health and Safety at Work etc. Act 1974** can be found [here](#).
This is the primary piece of legislation covering occupational health and safety in the UK.

- 1.3 The **Management of Health and Safety at Work Regulations 1999** can be found [here](#).
Every employer shall make a suitable and sufficient assessment of the risks to the health and safety of his employees to which they are exposed and that suitable control measures are implemented and maintained.

- 1.4 **HSE L22 Approved Code of Practice PUWER 1998** can be found [here](#).
The regulations, commonly known as PUWER, place duties on people and companies who own, operate or have control over work equipment.

- 1.5 **HSE L113 Approved Code of Practice LOLER 1998. (Revised 2014)** can be found [here](#).

This Approved Code of Practice and guidance is for those that work with any lifting equipment provided at work or for the use of people at work. These regulations build on the requirements of the Provision and Use of Work Equipment Regulations (PUWER).

Links to the following tools and guidance:

- For lifting, lowering and carrying use the [MAC tool](#) (indg383).
- For risk assessment pushing & pulling use the [RAPP tool](#) (indg 478).
- For assessing repetitive tasks – use the [ART tool](#) (indg438).
- For additional information on assessing repetitive tasks: Use the [ART index](#).

Appendix 2 – Manual Handling (MH) Risk Assessment

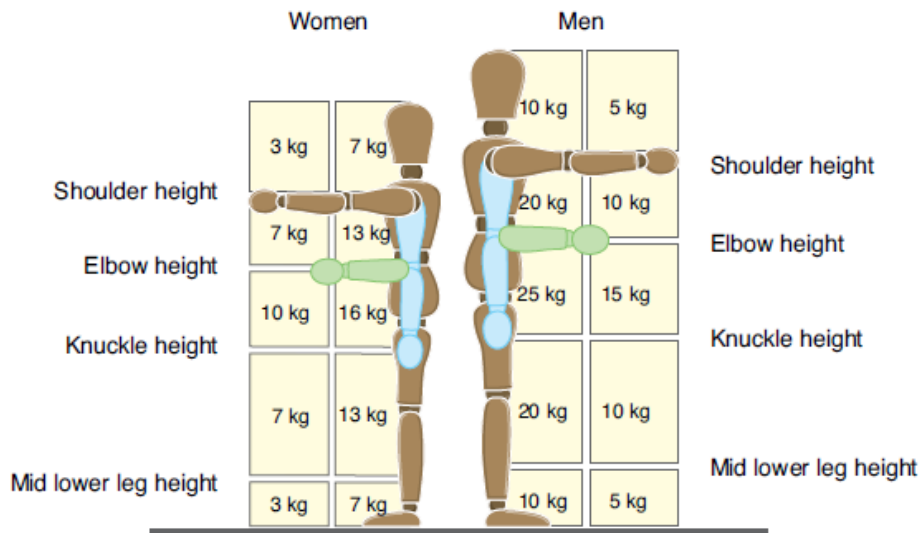
Section A:			
Assessor: (Print)	Area / Activity:		
Date:	Location:		
Diagrams / Photo Image:	MHO Assessment Title:		
	Title of Related Risk Assessment?		
	Person(s) Affected:		
<u>Risk Assessment Information:</u>			
Task Description: various (please list as per individual)	Load Weights:	Operation Frequency:	
<ul style="list-style-type: none"> • Confirm assessment discussed with employees, safety reps and area managers Yes / No • Are there other manual handling operations associated with this task? Yes / No (If yes please list below) 			
ACTIONS:			
<p>o be completed by the Line Manager:</p> <p>I consider this MHO assessment to be suitable and sufficient to control the risks to the health & safety of both employees undertaking the tasks and any other person who may be affected by the activities.</p> <p>Name: _____ Job Title: _____</p> <p>Signature: _____ Date: _____</p> <p>NB – If Line Managers do not agree that the risk assessment is suitable and sufficient then the assessment must be reviewed.</p>			
Overall assessment of injury risk	Severity	Likelihood	Outcome

Section B: Detailed Assessment Questions to Consider?	If yes, tick risk level: ✓			Problems occurring from the task (Consider the points below in preparation for the possible remedial action to be taken).	Possible remedial action e.g. changes that need to be made to the task, load, working environment, who will be involved in implementing the changes.
	Low	Med	High		
Do the Tasks Involve:					
• Holding loads away from the body?					
• Twisting?					
• Stooping?					
• Reaching upwards?					
• Large vertical movement?					
• Long carrying distance?					
• Strenuous pushing or pulling?					
• Unpredictable movement of loads?					
• Repetitive handling?					
• Insufficient rest or recovery?					
• A work rate imposed by a process?					
Are the loads:					
• Heavy?					
• Bulky/unwieldy?					
• Difficult to grasp?					
• Unstable / unpredictable?					
• Inherently harmful (e.g. sharp/hot)?					
Consider the working environment - are there:					
• Constraints on posture?					
• Poor floors?					
• Variations in levels?					
• Hot/cold/humid conditions?					
• Strong air movements?					
• Poor lighting conditions?					
Consider individual capability – does the job:					
• Require unusual capability?					
• Pose a risk to those with health issues or a physical / learning disability?					
• Pose a risk to those who are pregnant?					
• Call for special information/training?					
• Pose a risk to young persons?					
Other factors to consider:					
• Is movement or posture hindered by clothing or PPE?					
• Is the correct/suitable PPE present?					
• Are trolley/carts/floor surfaces poorly maintained/cleaned/repared?					
• Date of assessment	Date of next review		Comments:		

Appendix 3 – HSE Lifting and Handling Guidelines

The Approved Code of Practice (ACoP) to the Manual Handling Operations Regulations 1992, found here gives indicative maximum weights for women and men performing lifting and lowering, pushing/pulling and handling while seated.

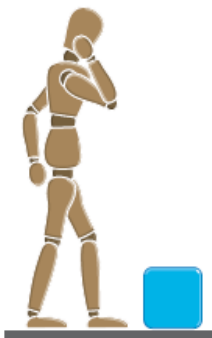



8.3.1 Lifting and lowering filter



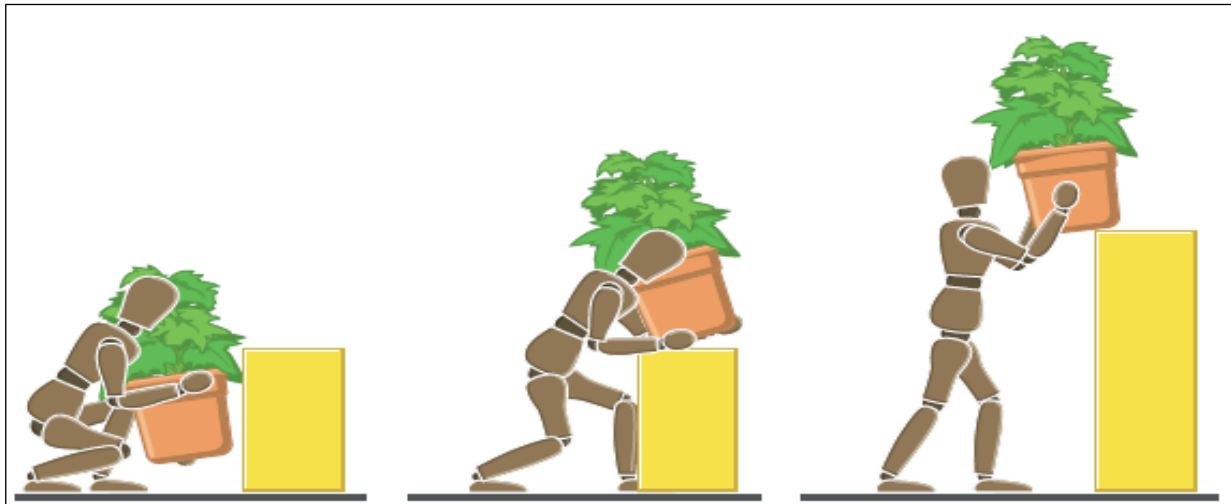
If the task lies **within the boxes**, then your simple assessment is complete.

If any task lies **outside of these boxes**, in terms of weight or height, then a more detailed risk assessment of that task will be required – using the MAC or RAPP tool.

8.3.2 Simple lifting and lowering – correct handling techniques

			
Consider the load	Adopt a stable stance	Ensure a firm grip Slight bending of the back hips and knees – use leg muscles for the lift	Keep load close to the body

8.3.3 Simple lifting and lowering examples



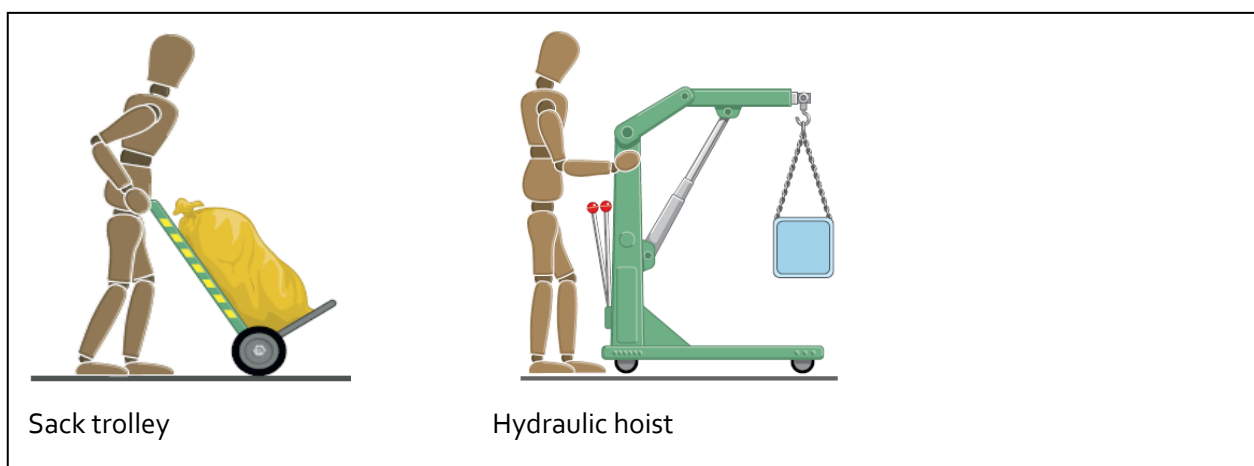
Stopping half way to change grip



Team Lifting

Remove obstructions at floor level to improve posture

8.3.4 Mechanical handling aids



Sack trolley

Hydraulic hoist

8.3.5 Application of guidelines checklist

Task:			
Activity	For each activity, does the task fall outside the guidelines? Y/N	Are there any other considerations which indicate a problem? Y/N - indicate what the problem is.	Is a more detailed risk assessment required? Y/N
Lifting and lowering			If Yes use MAC tool
Carrying			If Yes use MAC tool
Pushing and pulling			If Yes use RAPP tool
Handling while seated			If Yes carry out MH risk assessment

Appendix 4 – HSE 2016 / 2017 Statistics – Manual Handling Injuries

