The Manual Handling Service

Training Session Handout
For
Non-Clinical Handling Staff
2016
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References -
- Manual Handling Operations Regulations (HSE guidance)
- Trust Health & Safety Policies and handbooks
- COCH Manual Handling Policy
- Health Education England Sector Core Skills Framework

Useful Resources –
- Back Care App: available on iTunes and Android google play.
- NHS Employers Back in Work Back Packs (6 information booklets free to download.(PDF format))
**Introduction**

This hand out covers the general information about manual handling that all employees should be aware of. It is to be considered in conjunction with Health & Safety Legislation, the Trust’s manual handling policy and other relevant Trust health & safety policies. It gives general guidance on the Manual Handling Operations Regulations 1992, as amended by the Health and Safety (miscellaneous Amendments) Regulations 2002 (the Regulations).

Manual handling is a frequent activity for most employees. Without sufficient knowledge of the implications and risk involved in manual handling there is the likelihood of an injury for the person or for those around them. Manual handling accidents account for 40% of work related sickness absence in the health & social care sector. Manual handling injuries are part of a wider group of musculoskeletal disorders (MSD’s) such as upper limb disorders.

Medical and scientific knowledge stresses the importance of an ergonomic approach to remove or reduce the risk of manual handling injury. Ergonomics is sometimes described as ‘fitting the job to the person, rather than the person to the job’. The ergonomic approach looks at manual handling as a whole, taking into account a range of relevant factors, including the nature of the task, the load, the working environment and individual capability of the worker.

The physical risk factors can be harmful to the body and can lead to the development of MSD’s, however psychosocial risk factors also need to be taken into account, e.g. working relationships with managers, colleagues, workloads, lack of control of the work etc..

The Regulations apply to a wide range of manual handling activities involving the transporting or supporting of a load, and further information on this can be found below.

**Manual Handling Operations Regulations**

(i) **Definition of Manual Handling**

Manual Handling is defined as any transporting or supporting of a load (including lifting, lowering, pushing, pulling, intentionally dropping or throwing, carrying or moving thereof) by hand or by bodily force. The load may be moved or supported by the hands or by any other part of the body i.e. shoulder. Effort may be applied directly to the load, or indirectly by hauling on a rope or pulling on a lever. Introducing mechanical assistance, e.g. a sack truck or a powered hoist, may reduce but not eliminate manual handling since human effort is still required to move, steady or position the load.

A load may be an inanimate object, person or animal.
(ii) Employers Responsibilities

**Avoid** the need for employees to undertake any manual handling activity at work, which involves a risk of injury:

- Avoidance
- Mechanisation/Automation

Each employer where it is not possible to avoid handling a load shall **Assess** the task looking at:

**Task** — Do they involve?

- Holding loads away from the trunk?
- Twisting?
- Stooping?
- Reaching upwards?
- Long carrying distances?
- Strenuous pushing or pulling?
- Unpredictable movement of loads?
- Repetitive handling?
- Insufficient rest?
- Work rate imposed by a process?

**Individual Capabilities of employees** — does the job:

- Require unusual capability?
- Hazard staff with a health problem/learning difficulty?
- Hazard staff who are pregnant?
- Need special information or training?
- Is movement restricted by clothing or personal protective equipment?
- Is there anything else which makes the task more hazardous?

**Load(s)** — are they:

- Heavy?
- Bulky/unwieldy?
- Difficult to grasp?
- Unstable?
- Unpredictable?
- Harmful i.e. sharp or hot?

**Environment** — are there:

- Constraints on posture?
- Poor floors?
- Variations in levels?
- Hot/cold/humid conditions?
- Strong air movements?
- Poor lighting?

**Other** — are there:

- Workload pressures/changes?
- Communication problems?
- Training deficiencies?
- Problems with PPE?
Following this assessment each employer will take appropriate steps to **Reduce** the risks of injury to employees to the lowest level reasonably practicable. Manual Handling Risk Assessment does not always result in the need to spend money or take a long time to complete. **Review** or Reassessment should be carried out when thought that the previous assessment is invalid.

**What is a Manual Handling Risk Assessment?**
Assessing manual handling risks means:
- Being aware of the problems
- Determining how concerned you need to be about a problem
- Taking action to reduce risks
- A formal approach to identifying and provision of equipment for safer manual handling.

**Examples of ways to reduce risks:**
- Change layout of working area
- Split large, heavy load into smaller, lighter loads
- Provide mechanical way of moving the load i.e. hoists, trolleys.
- Provide handling devices
- Allocate more staff to the job
- Train staff to do the job in the least hazardous way
- Redesign storage area so that heavy things are stored at waist level
- Provide staff with clothing that allows freedom of movement
- Order items in smaller quantities
- Rotate staff doing the job
- Improve the lighting
- Have poor flooring repaired or renewed.

(iii) **Employees Responsibilities**
Each employee while at work shall:
Follow training
Take reasonable Care of themselves and others who may be affected by their acts and omissions at work.
Co-operate with their employer
Tell someone if there are risks from health & safety
Other Related Legislation

Provision and Use of Work Equipment Regulations (PUWER)
The regulations pull together the laws governing equipment used at work. ‘Work Equipment’ is broadly defined to include everything from hand tool, through machinery of all kinds, to complete plant. Staff should refer to the Trust Health & Safety policy and associated handbooks.

Lifting Operations and Lifting Equipment Regulations (LOLER)
The regulations are designed to ensure the safe use of lifting equipment and the law requires

- The equipment is suitable, strong and stable enough for use and marked with the safe working load including accessories and equipment.
- Positioned and installed to minimise risks from the load falling or striking people
- Used safely i.e. the work is planned, organised and performed by competent people
- Ensure all lifting equipment and its accessories are marked with a safe working load.
- Subject to initial and ongoing ‘Thorough Examination’ (usually detailed within a written scheme of examination drawn up by a competent person and where appropriate regular inspection by competent people). Ensure that all written records are kept for the lifetime of the equipment or for 2 years.

Lifting equipment in all departments should be thoroughly examined to comply with this regulation, and managers of all departments should notify Estates to arrange for this work to be carried out.

Incident Reporting

The Trust has one reporting system for recording accidents/incidents and near misses. All Manual Handling Incidents should be reported using this system. All incidents reported are investigated which is overseen by the Manual Handling Service. Investigation of incidents helps us to identify risks, and recommend control measures to eliminate or reduce them. It is also important for staff to report near misses using the same system.

For information on how to report an incident log on to the Trust’s intranet A – Z site. Click on ‘I’ and click on ‘Incident reporting’.

Manual Handling Service

The Service reports to the Trust’s Risk, Health & Safety Committee. The Manual Handling Service can be contacted for specific advice.

The formal manual handling training courses are held in the Education & Training Centre. The Service also supports link trainers in non-clinical areas with support for training in the workplace locally.
How to contact us

Telephone Extension 5750 or 5883
Bleep 2676 (office hours only)
Email - we can be found in the COCH address book under “Handling Manual”
Details of Manual Handling courses can be found in the Training Directory. To book onto a course please follow instructions for each specific course contained in the Training Directory.

Manual Handling Policy & Appendices

Manual Handling Policy
The Manual Handling Policy is to be found on the Trust’s ‘share-point’ site, on the intranet.

The following documents are appendices to the main policy document and should be used/read in conjunction with it:

| Appendix 1a – Example Risk Assessments Lifting or Carrying An inanimate load |
| Appendix 1b – Example Standard Operating Procedures Lifting Or carrying an inanimate load |
| Appendix 2a- Example Risk Assessment Pushing or pulling Inanimate loads |
| Appendix 2b- Example Standard Operating Procedures Pushing or pulling inanimate loads |
| Appendix 3a- Example Risk Assessment moving a patient using a hoist |
| Appendix 9 – Guidance on Completing Manual Handling Risk Assessments & Checklists |
| Appendix 9b- Review of Generic Manual handling Risk Assessment (Review Form) |
| Appendix 10 – Manual Handling of Loads: Assessment Form (Lifting and Carrying) |
| Appendix 11 – Manual Handling of Loads: Assessment Form (Pushing and Pulling) |
| Appendix 14 – Induction Checklist for New Staff (Non-Clinical) |
| Appendix 16 – Prevention & Management of Falling/Fallen Patient/Person |
| Appendix 17- Emergency situations |
| Appendix 18 - Role of the Manual Handling Link Trainer |

Manual Handling Equipment

It is the responsibility of senior managers, ward/department manager, and Heads of Department to ensure that staff within their areas of responsibility, have received information, instruction, training and supervision to enable them to use manual handling equipment in a safe and effective manner, please refer to the Health & Safety policies under the headings ‘provision and Use of Work Equipment Regulations’. 
Training can be supported by the equipment manufacturer, the manual handling link trainer for the area, and the Manual Handling Service. All records of staff equipment training/competencies should be kept by the manager of the department where it is owned/used.

**Equipment Hire**

**Hired Lifting Equipment**
Staff should check inspection records for hired equipment, and the hire company are responsible for providing sufficient information and training for its safe use.
Managers wishing to hire in manual handling equipment should refer to the Trust Health & Safety policies, and contact the Estates department for advice.

**Reporting Faulty/broken Manual Handling Equipment**
If equipment is involved in an incident and is thought to be faulty, take out of use, inform Manual Handling, Health & Safety Adviser and the Estates Department as soon as possible.
If equipment is found to be faulty (not involved in an incident) Take the equipment out of use and attach ‘out of use’ note on it.
Requisition to Estates Department. In urgent cases ring Estates.
Decontaminate if required, & attach a Decontamination Certificate to equipment.
If reporting faults with lifting equipment, please advise Estates with the details and location.

**Promoting healthy back care**
The spinal cord is a thick cord of nerve tissue which is enclosed by the spine. Together with the brain it forms the central nervous system. The vertebrae are the bones which act as the building blocks of the spine. They can be damaged by impact injury. The vertebral column consists of 33 vertebrae, 24 prescaral (moveable) vertebrae, the sacrum and the coccyx.

The intervertebral discs act as shock absorbers – they are soft fibrous discs with a jelly like centre and are positioned between vertebrae. They allow the spine to move by cushioning movements between the vertebrae.
This complexity and the amount of movement it allows can leave it vulnerable to damage.
Ensuring good musculo-skeletal health is essential to enable safe manual handling.

Common injuries include damage to joints, muscles, tendons and ligaments, intervertebral discs

Less common damage includes repetitive strain injury, hernias, abrasions/bruises, wear & tear and fractures. Common factors that can cause injury include having to hold a static posture, bending or twisting, lifting heavy loads and poor seating posture.
Soft tissue injuries tend to be the cause of the majority of reported back injuries. Cumulative strain is when these injuries occur as a result of repetitively carrying out these activities.
Principles of Lifting & Lowering

- Think, Plan & Prepare
- Assess load
- Foot position
- Firm hold
- Spine in line
- Hips and Knees flexed
- Support the load close
- Avoid twisting or leaning
- Head up
- Move smoothly
- Put down then adjust

Promoting Healthy back care -

what you can do
- Always ensure a good posture
- Keep moving to avoid static postures
- Don’t flex the back while lifting, don’t straighten legs before raising the load
- Avoid twisting the back or leaning sideways especially while the back is bent.
- Try to use chairs with adjustable back rests etc. to give good support and aid good posture.
- Stay active and exercise. Particularly strengthen abdominal and back muscles.
- Maintain a healthy weight
Manual Handling Principles for Pushing and Pulling

1 Environment
   Clear adequate space
   Clear adequate pathway

2 Placement of feet
   Stride position

3 Starting posture
   Slightly bent knees

4 Hand position
   Between waist and shoulder level

5 Grip
   Firm grip or whole hand flat contact - not finger tips

6 Spine posture
   Spine in line

7 Test push
   If assessed as too heavy the load MUST NOT be moved. Seek help

8 Push action
   Stand tall, push with legs
   Walking motion

9 Consider
   Backwards is easier but you cannot see where you are Going

Pushing/Pulling Guidelines

Assuming force is applied with hands between knuckles and shoulder height the figures below highlight the recommended maximum amount of force that needs to be applied to push/pull a load Before a risk assessment is required.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopping &amp; Starting</td>
<td>20kgs (200 Newtons)</td>
<td>15kgs (150 Newtons)</td>
</tr>
<tr>
<td>Keeping the load</td>
<td>10kgs (100 Newtons)</td>
<td>7kgs (70 Newtons)</td>
</tr>
<tr>
<td>In Motion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Manual Handling Operations Regulations weight thresholds (DIAG 2001)

There is no such thing as a 'safe load' but the Health and Safety Executive has issued the diagrams below, which can be taken as a rough guide to where tasks begin to require more careful analysis. (e.g. the use of Appendix Form 2 or 3). The diagrams assume that the load is readily grasped with both hands; that the operation takes place in reasonable working conditions and that the person is in a stable body position. Each diagram is intended to show how limits vary as the load is moved away from the body and above or below waist height.

It is claimed that the guideline figures will apply to 95% of men and women. Additional reductions must be made if the task involves twisting: by 10% for a 45 degree turn and 20% for a 90 degree twist. A correction for highly repetitive operations - up to twice a minute - brings the guideline down a further 30%. If the rate increases to five to eight times a minute, the guideline load should be reduced 50%.

It is not necessarily wrong for a load to be in excess of the guideline figures but the further the load increases, the greater responsibility management carries. Certainly, anything approaching twice the guideline figures without very specific risk assessment and training could well attract enforcement action and litigation.

- These are **guideline figures** – not ‘weight limits’
- Approximate boundaries within which a load is unlikely to create risk
- Reasonable level of protection for 95% of workers
- Assumes that the load is easy to grasp with both hands
- That the task/operation takes place in reasonable environment
- That the handler has a stable body position
- That the handling is infrequent (up to 30 operations/hour)

**Lifting and Lowering**
Each box in the diagram above contains a guideline weight for lifting and lowering in that zone. Using the diagram enables the assessor to take into account the vertical and horizontal position of the hands as they move the load, the height of the individual and the reach of the individual handler. As can be seen from the diagram, the guideline weights are reduced if handling is done with arms extended, or at high or low levels, as that is where injuries are most likely.

**Handling Whilst Seated**

![Diagram of handling whilst seated]

The diagram here provides guidance on lifting whilst seated. The guidelines only apply when the hands are kept within the box zone indicated. If handling beyond the box zone is unavoidable, a more detailed risk assessment should be made.

**Team Handling**

Handling by two or more people may make possible an operation that is beyond the capability of one person, or reduce the risk of injury to a single handler. The load that a team can handle safely is **less** than the sum of the loads that the individual team members could cope with when working alone.

As a guide the capability of a two-person team is two-thirds the sum of their individual capabilities and for a three-person team the capability is half the sum of their individual capabilities.

There may be additional difficulties if:

- Team members get in the way of each other
- The load does not have enough good handholds
- The background noise level is too high to allow easy communication between team members

For safe team handling there should be enough space for the handlers to manoeuvre as a group. They should have adequate access to the load, and the load should provide sufficient handholds.

One person should plan and then take charge of the operation, ensuring that movements are co-ordinated. However, there should be good communication between team members. Think about the dignity and safety of everyone.
**Management of Falling/Fallen Person**

Guidance can be found in the Trust Manual Handling Policy & the Trust policy Prevention & Management of falls.

The reasons why people fall are complex and influenced by contributing factors such as illness, mental health, medication, age and environmental factors, (*Masud & Morris 2001* and *Steinhoef et al 2002*) these study results break down the risk factors into three groups, intrinsic factors including the medical, physical and functional ability of the person, extrinsic factors are concerned with the environment, and behavioural factors are concerned with the mental health and cognitive level of the person.

Staff should be aware that if in close proximity to falling persons, they can be at significant risk of harm.

**Falling person intervention guidance**

The handling of the falling/fallen persons presents a high risk of injury to both the person and any handlers. Therefore all staff should be aware of the information below including theoretical and pictorial guidance regarding systems to manage a falling person.

Training on the practical aspects of managing the falling/fallen person and some emergency situations may expose the staff to techniques, which have an inherent risk, therefore this is not demonstrated or practised on training courses. The importance of balanced decision making between individual’s duty of care to others and their responsibility to protect themselves and the extent of the risk of ‘catching’ the falling person is significant, but it is acknowledged that it is human nature to want to prevent harm to people.

There is no definitive answer as to whether you should or should not intervene with a falling person.

**Controlled lowering of the falling person** should begin with releasing the hold of the person and move behind them. Ensure you have a stable base, with one foot slightly in front of the other (Fig 1). The front knee should be bent more than the back knee.

Use hands to grasp the person’s trunk, near their hips (Fig 1).

Allow the person to slide down the front leg until they are lowered safely to the floor (Fig 2).

You should avoid flexing your back too much. You should finish the manoeuvre by kneeling behind the person on the floor (Fig 3).

![Fig 1](image1.png)

![Fig 2](image2.png)

![Fig 3](image3.png)

**Fallen Person guidance** – All clinical handling staff receive training on appropriate methods for rescuing a fallen person from the floor using equipment – please do not attempt to move the person – contact the nearest clinical areas for help.