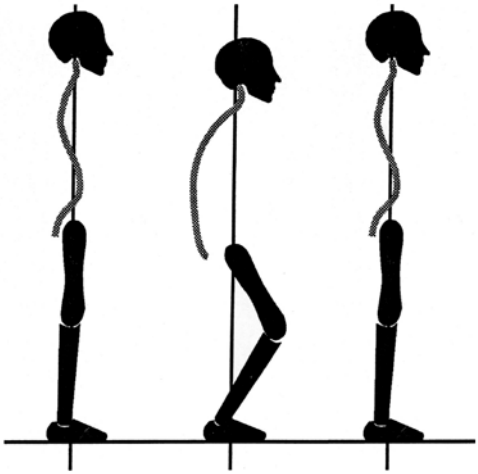
NHS
Greater Glasgow and Clyde

Efficient Moving & Handling



Course Handout

CONTENTS

INTRODUCTION

This handout has been designed as an aide memoir to the Moving and Handling course you have just attended.

Manual Handling Operations Regulations 1992, amended 2004 MHOR (ref 1) ***Definition of a manual handling operation:***

A manual handling operation can be defined as any task involving supporting or transporting any load by human effort including:

- **Lifting**
- **Carrying**
- **Holding or supporting in a static posture**
- **Pulling**
- **Pushing**
- **Lowering a load**

EMPLOYERS DUTIES

"Each employer shall so far as is reasonably practicable avoid the need for his employees to undertake any manual handling operations at work which involve a risk of their being injured. Where that is not reasonably practicable they must make a suitable and sufficient assessment and take appropriate steps to reduce the risk of injury." (ref 1)

- Provide safe systems of work e.g . NHSGGC Moving and Handling Policy, local Moving and Handling procedures
- So far as is reasonably practicable avoid the need for any moving and handling task
- Carry out moving and handling risk assessments to reduce risks
- Provide equipment to reduce the risk
- Provide moving and handling training

EMPLOYEES DUTIES

"Each employee while at work shall make full and proper use of any system of work provided for their use by their employer." (ref1)

- Be aware of hazardous tasks identified by the risk assessment process
- Implement safe systems of work
- Implement the training provided by NHSGGC

NB It is the employee's duty to take reasonable care for the health and safety of themselves and of other persons who may be affected by his/her acts or omissions. To achieve this, each person must recognize when they are at risk and take steps to avoid or reduce that risk.

These could be local systems or NHSGGC wide e.g. Moving and Handling Policy

RISK ASSESSMENT

The Health & Safety Executive has identified five steps to follow when carrying out Risk Assessment. (ref 2)

- Identify the hazard / problem
- Identify who might be harmed and how
- Evaluate the risks (decide if existing controls are adequate or should more be done)
- Record your findings
- Review your assessment and revise when necessary

NHSGGC's Formal Moving and Handling Risk Assessments are located in the Health & Safety Management Manual. These can be located on staffnet - See further reading (page 11) for address.

FACTORS TO CONSIDER IN RISK ASSESSMENT

The Manual Handling Operations Regulations 1992, amended 2004 (ref 1) provides guidance on the factors to be considered in assessing any manual handling operation. There are 4 main categories to be acted upon before moving the patient or any other load. These are as follows:

TILE

Task

Does it need to be done?

Do you need equipment to help as there may be awkward postures and/ or prolonged physical effort required?

Individual

Does the task require extremes of height / strength?

How many people are required?

How familiar are you with equipment?

Do you have the necessary skills / knowledge?

Are you physically able for the task?

Load

Inanimate Load Handling:

Is the load heavy, bulky or unwieldy, difficult to hold?

Unstable with contents likely to shift?

Sharp or hot, potentially damaging?

Patient / Client Handling:

The diagnosis / medical condition of the patient.

The weight, height and build of the patient.

What are the patient's capabilities?

Is the patient attached to medical equipment for example I.V. lines and catheters?

Environment

Is the space, lighting and flooring suitable?

Can you make it easier by changing the environment?

Hot, cold or humid conditions?

Is equipment fit for purpose?

CAUSES OF MUSCULOSKELETAL INJURY

Moving and Handling injuries to staff tend to fall into two categories

1) traumatic i.e. resulting from a specific incident

2) cumulative i.e. no specific event

1a) In the NHS traumatic injuries tend to have their root cause in how clinical staff are handling patients

The basic definition of a high risk 'controversial' manoeuvre is one where you are:

- Lifting or supporting the full or major portion of the patient's body weight.
- Using a locked in hold, for example a Drag Lift or through arm hold would be considered high risk.

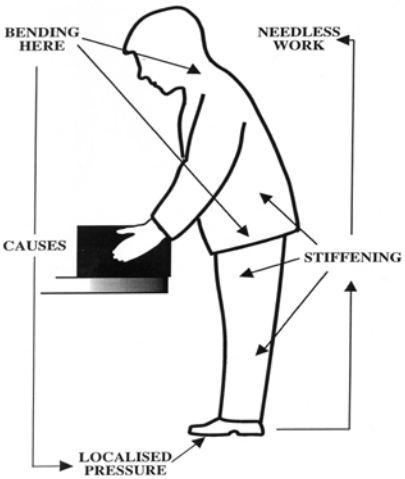
Many traumatic injuries are now being avoided by the provision and use of equipment i.e. hoists, standing aids, electric profiling beds, lateral transfer boards and sliding sheets. However the use of the drag lift continues to be the cause of many traumatic injuries.

1b) Traumatic injuries can also occur when moving inanimate loads i.e. lifting, lowering, carrying, pulling and pushing objects. Equipment is also available for the handling of these loads, for example trolleys, and other powered moving and handling equipment such as functional movers, stair climbers and pallet movers.

2. Cumulative injuries tend to have their root cause in the postures that you adopt when standing, sitting and lying. The most common posture adopted in standing is a stooped or top-heavy posture. These stooped postures are very inefficient and develop excessive amounts of tension throughout the body. This repeated sustained tension over time may lead to tissue adaptation which may result in a potential higher risk of injury through cumulative strain. Therefore it is important to use an efficient personal pattern of movement.

INEFFICIENT POSTURE

Most people are eye / hand task driven, that is the eyes and the hands tend to lead all handling actions. These actions will pull you into stooped (top heavy) postures which are very inefficient, creating excessive muscular tension leading to cumulative strain. To reduce these postures you need to incorporate the following actions into your movement pattern.



EFFICIENT PERSONAL MOVEMENT

The following movement principles are based on anatomical, physiological biomechanical and developmental considerations in relation to human movement, which make up an efficient pattern of movement. This pattern can be applied to all core human movement. Much of the work in this area has been conducted by MovES.

Get close

'The closer to the load you are the less likely you are to be displaced' (ref 3)

Getting as close to the patient or load as possible brings the patient / load closer to your base area, improving your combined balance. In addition, being closer enables a greater surface area to be in contact with the patient or load which will increase security and comfort.

Get an Angle

'Approaching a load at an angle reduces rotation in the spine' (ref 3)

In most handling situations taking a hold to the front, back or side of the load will result in rotation of the spine unless an angle is adopted.

Relaxing the knees

'The lower the centre of gravity of an object, the less likely it is to be displaced' (ref 3)

This means that by relaxing (not bending) your knees, you will lower your centre of gravity, this allows you to be in balance. If you are better balanced, less protective postural muscle stiffening (the body's saving reaction to being off balance) occurs - therefore less sustained tension and resultant cumulative strain. By relaxing your knees and reducing tension, movement becomes easier, and body weight can be distributed more evenly across both your feet.

Positioning the feet

'The greater the area of base of an object the less likely it is to be displaced' (ref 3)

This means that your feet should be 'off set' to ensure that you are better balanced, this allows you to keep adjusting your base and turn your foot in intended direction of travel. Relaxing the knees prior to this facilitates movement of your feet. If you are better balanced, less protective postural muscle stiffening occurs - therefore less sustained tension and resultant cumulative strain.

Movement of the spine

'The human spine, when considered as a whole, is capable of a relatively wide range of movement' (ref 3)

As this is the case the back should be allowed to move. By allowing the back to soften (relax) and move with gravity, your musculature will be encouraged to relax, therefore reducing sustained tension. Initiate movement by allowing a stretch to occur from as low down the spine as possible. This facilitates the natural elasticity and physiological recoil of the body. As the stretch relaxes, vertically lower your bottom and only then allow movement of the spine to occur.

Indirect hold

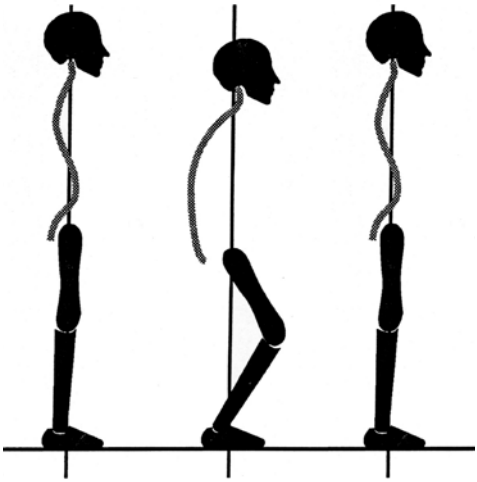
'In all handling situations the more an indirect hold is taken the less upper limb and thoracic tension is produced' (ref 3)

Initiate a reaching action by gently elevating and relaxing your shoulder girdle. By gently stretching your palmer fascia (palm) before you take your hold, you take advantage of the natural tendency for the hand to curl round an object (elastic recoil), promoting a holding rather than a gripping action. Taking hold of the load from as far below as is possible or feasible allows gravity to take the load into not out of the hands, therefore reducing the need to grip.

Leading with the head

"In the normal developmental sequence, head control precedes the ability to sit, stand and walk" (ref 3)

In the upright (resting) position the spine has three natural curves. At the effort phase of any movement, if the head leads the movement, your body will move towards the upright position as the movement progresses. If all possible principles have been satisfied, the movement will progress within a balanced base area, reducing the top heavy element and the amount of sustained tension.



(ref 3)

Efficient Moving and Handling - Putting it together

Pulling, pushing, lifting, lowering, reaching and turning are the six core human movements. All activities will utilise one or more of these movements and will require you to:

Get **Close**

Get on an **Angle**

Relax your **Knees**

Off set your **Feet**

Elevate, relax and allow movement of your **Spine**

Take an **Indirect Hold**

Lead with your **Head**

Remember this is not a rigid drill, but you should try to apply it to the best of your ability.

The above applies to all activities whether you are helping somebody to stand up, washing your cup in the sink at home or writing notes at the desk - help yourself by moving efficiently.

Remember, if you are having difficulties please contact your line manager and if required a member of the moving and handling team for your area. See following page for contacts.

NHSGGC Acute Service (North)

Moving & Handling Team

Gartnavel General Hospital	**tel 0141 211 3177 (53177)**
Western Infirmary Glasgow	**tel 0141 211 6335 (56335)**
Glasgow Royal Infirmary	**tel 0141 232 0715 (20715)**
Yorkhill Hospital	**tel 0141 201 9338 (89338)**

Other Acute sites covered by North Team:

Stobhill ACH	**Drumchapel Hospital**
Blawarthill Hospital	**Vale of Leven Hospital**
Lightburn Hospital	

NHSGGC Acute Service (South and Clyde)

Moving & Handling Team

Victoria Infirmary	**tel 0141 201 5973 (65973)**
Inverclyde Royal Hospital	**tel 01475 504 750**
Dykebar Hospital	**tel 0141 314 4109**

Other Acute sites covered by South Team:

Southern General Hospital	**Royal Alexandra Hospital**
Mansionhouse Unit	**Mearnskirk House**
Victoria ACH	

Partnerships:

Lightburn Hospital	**tel 0141 211 1549 (21549)**
Dykebar Hospital	**tel 0141 314 4116**

Moving and Handling Personal Training Record

Name: _____

Course Attended	Venue	Date(s)

State 3 key points you have learned on this course, and identify how you can transfer them into your day to day work:

NOTES:

References

1 – Health & Safety Executive, Manual Handling: Manual Handling Operations Regulations 1992: Guidance on Regulations, HSE Publications

2 – Health & Safety Executive, 5 steps to Risk Assessment, HSE Publications

3 – The Neuromuscular Approach to Human Movement, MovES Ltd

Further Reading

NHS Greater Glasgow & Clyde, Moving and Handling Policy 2008.

NBE, Backcare and RCN, The Guide to the Handling of People, 5th Edition, Backcare, Middlesex, 2005.

Royal College of Nursing, Manual Handling Assessments in hospitals and the community: an RCN Guide, 2007.

The Chartered Society of Physiotherapists, Guidance on manual handling in Physiotherapy, 3rd Edition, CSP, 2008.

Intranet – Moving and Handling pages on staffnet, click on 'info centre' then 'healthy and saftey' then 'moving and handling' or type in http://staffnet/infocentre/health+and+safety/moving+and+handling/

Evidenced-Based Patient Handling. *Tasks, Equipment and interventions 2003, 1st Edition, by Sue Hignett et al.*

Internet/Useful Websites

Health and Safety Executive, www.hse.gov.uk

Backcare, www.backcare.org.uk

Scottish Manual Handling Forum, www.smhf.co.uk

Nursing and Midwifery Council, www.nmc-uk.org.uk

Royal College of Nursing, www.rcn.org.uk

The Chartered Society of Physiotherapists, www.csp.org.uk

Movement Education Services, www.moves.org.uk

National Back Exchange, www.nationalbackexchange.org.uk

NHS
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MEDICAL ILLUSTRATION SERVICES
To obtain copies of this document contact Moving & Handling
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