Mandatory Training Workbook 2015

Manual Handling Theory

All Staff

Definitions of Levels

Level 1 – All staff (theory based)
Level 2 – Patient Handling staff (practical)

Checklist

- ***Read through this section of the workbook.***
- ***Complete the on-line assessment on*** My PACT
- ***If further information is required please contact the Manual Handling department on ext 1211 or 1882 or bleep 2034***

Learning Outcomes – mapped to Core Skills Framework

All staff should be able to:

- Describe employers and employees responsibilities under relevant national Health & Safety legislation including most recent versions of the Moving and Handling Regulations
- Describe responsibilities under local Trust Policies for Moving and Handling
- Identify where additional advice and information can be sought relating to Moving and Handling issues if necessary
- Demonstrate competence to conduct 'on the spot' risk assessments prior to moving inanimate loads
- Describe:
    - An ergonomic approach to manual handling and other work tasks leading to improved working posture
    - Good back care to promote general musculo-skeletal health
    - Principles of safer handling
- Identify local risk management processes and safe systems of work within your organisation
- Describe the importance of good team communication of all risk assessments conducted in safer handling
- Identify appropriate risk control strategies, resources and support channels available following a risk assessment
- Describe and demonstrate the processes involved in object handling with the best quality care using appropriate, safe and dignified moving and handling procedures (where appropriate).

This section aims to explore your role in manoeuvring patients and loads safely, to ensure that you implement the principles of moving and handling to reduce risk to their lowest level.

The Trust has a duty to provide suitable and sufficient training to all staff to promote a safe environment.

Definition

According to the Manual Handling Operations Regulations (MHOR) - Manual Handling is defined as:

"...any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force" (MHOR 1992)

The MHOR (1992) establish a clear hierarchy of measures for dealing with risks from manual handling, these are:

- **avoid** hazardous manual handling operations so far as is reasonably practicable;
- **assess** any hazardous manual handling operations that cannot be avoided; and
- **reduce** the risk of injury so far as is reasonably practicable.
- **review** systems in place

The HSE state that:

'There is **NO** threshold below which manual handling operations may be regarded as safe.'

This means all manual handling tasks have a degree of risk. Manual handling operations should be **avoided where reasonably practicable** and a risk assessment should take place where they cannot be avoided.

Legislation and responsibilities

The Health and Safety at Work Act (1974) imposes a duty on employers to provide safe systems of working and a safe environment in which to work. This is not an absolute duty as it is qualified by the phrase ***'so far as is reasonably practicable'.***

Under the Act, there is a corresponding duty placed on employers to take reasonable care for his or her own health and safety and the health and safety of other people who may be affected by his or her acts or omissions and to co-operate with the employer in performing the duties under the Act. Compliance with the Act, and subsequent legislation, is monitored by the Health and Safety Executive (HSE).

HSE Inspectors have a right to enter and conduct inspections. They also have the power to issue various penalties for failure to comply with the legislation. These include the issuing of Improvement Notices, Prohibition Notices and Criminal Proceedings, in either the Magistrates or Crown Court.

The legal responsibilities placed on employers include the prevention of accidents and work-related ill health such as musculoskeletal disorders, back pain and upper limb disorders.

Employers Duties

- **Avoid** any hazardous manual handling as far as is reasonably practicable
- **Assess** any manual handling task which cannot be avoided
- **Reduce** the risks as far as is reasonably practicable
- **Provide** information on the load
- **Review** systems in place

Employees Duties

- Follow appropriate systems laid down for your safety
- Be aware of and understand the Trust's Manual Handling Policy
- Make proper use of equipment provided for your safety
- Co-operate with your employer on health and safety matters
- Inform your employer if you identify hazardous handling activities or any dangerous defects in equipment
- Take care to ensure that your activities do not put others at risk
- Attend and maintain all relevant training provided by the Trust

The Causes of Manual Handling Injuries

Accidental Injuries

Accidental injuries are, of course, caused by unforeseen, unplanned or unanticipated events – accidents.

Over-exertion Injuries

Resulting from the failure of a musculo-skeletal structure when exposed to a load which exceeds to mechanical strength

Cumulative Injuries

Also referred to as 'wear and tear' or 'fatigue failure'. Cumulative injuries occur when relatively small amounts of force are applied repeatedly to a musculo-skeletal structure over a period of time.

Epidemiology of Back Pain

Musculoskeletal Disorders (MSDs) can affect muscles, joints and tendons in all parts of the body. Most work related MSDs develop over time and can also result from fractures sustained in an accident.

The latest estimates from the Labour Force Survey (LFS) show that in Great Britain:

- The total number of MSD cases in 2013/14 was 526,000 out of a total 1,241,000 for all work-related illnesses.
- The number of new cases of MSDs in 2013/14 was 184,000, up from 141,000 in 2011/12.
- The total number of working days lost due to MSDs in 2013/14 was 8.3 million, an average of 15.9 days per case of MSDs.
- Activities in specialised construction, agriculture, postal and courier and health care had higher rates of total cases of MSDs compared to the average across industries.

Ways to harm your Back

- Repetitive or heavy lifting
- Bending and twisting
- Exerting too much force
- Poor working conditions
- High job demands and lack of control
- Not recognising symptoms and taking action

Postural Issue

Low back pain frequently brought on by:

- Sitting in a poor position
- Prolonging bending in a bad position
- Incorrect lifting technique
- Standing or lying in a poor posture

Ways to prevent Back Pain

- Watch your weight
- Take regular exercise
- Stop, or cut down, smoking
- Manage your stress levels
- Posture awareness

Risk Assessment – MHOR 1992 (amended 2004)

Risk assessment is the key to safer manual handling. To ensure that we always follow safe systems of working, the Trust requires that a risk assessment is completed prior to undertaking any moving and handling tasks. The risk assessment follows the TILE approach as identified below:

Tasks	**Individual Capability**
Posture of Spine Twisting/Stooping Carrying distance Frequency/Duration Team Handling	Strength Height Pregnancy Knowledge Clothing and Footwear
Load	**Environment**
Weight Size/Shape Handling Points Stability Intrinsically harmful	Space constraints Temperature/Humidity Lighting Noise Level of floor

Caution:

If you think you cannot manage the load: **DON'T!**

Points to consider when manual handling loads:

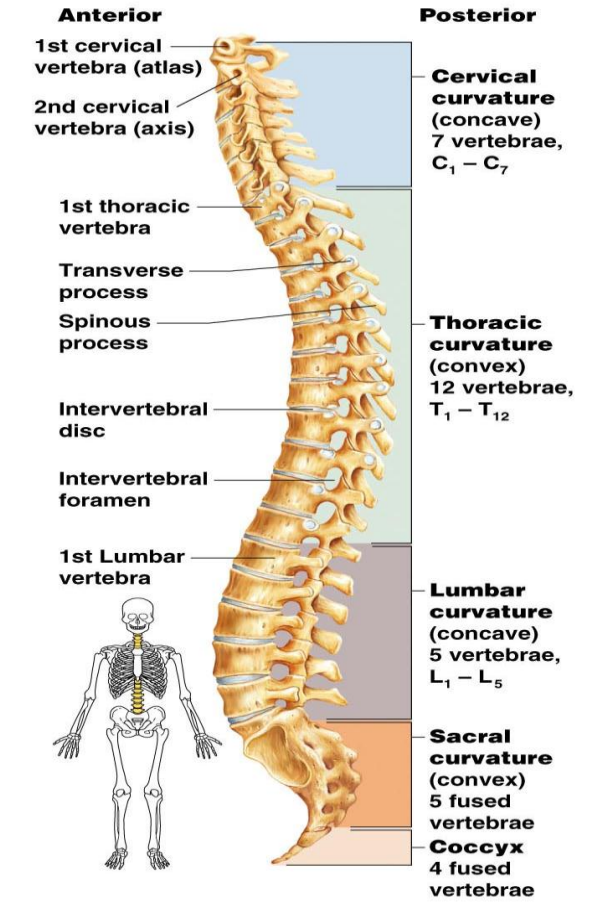
Task, does it involve holding loads away from the trunk, twisting, stooping, reaching upwards, strenuous pushing and pulling?

Individual capability, does the task need unusual capability, special training, pose a risk to staff with a health problem, are there any physical or learning difficulties, are staff pregnant?

Loads, are they heavy, bulky, difficult to grasp?

Environment, are there constraints on posture, poor floors, variations in levels, hot/humid/cold conditions, poor lighting?

There are normally thirty-three vertebrae; the upper twenty-four are articulating and separated from each other by intervertebral discs, and the lower nine are fused, five in the sacrum and four in the coccyx or tailbone.



Principles of Safer Manual Handling

The principles of safe manual handling may require careful practice before they can be automatically incorporated into every day routine but the rewards can be considerable. The body structure will maintain elasticity and the progressive stiffening and loss of suppleness, which occurs with age, will be reduced**.**

- Avoidance first thought, manual handling last resort.
- Keep your spine in line, maintain the 4 natural curves.
- Make a stable base, feet as far apart as shoulders, one foot slightly in front.
- Keep the load close to your centre of gravity.
- Vary your tasks so that different muscle groups are used in turn
- Make use of large muscles in thighs and buttocks.

- Wear clothing that allows unrestricted movement, maintains modesty, with shoes that are non slip and provide support.
- Relax and move smoothly.

If manual handling in a team: appoint a leader, plan & give clear concise agreed instructions

Good movement always begins at the base and progresses upwards. The initial movement begins at ground level by placing the feet apart to give the body a wide stable base. This reduces stiffening in the tissues and muscles to prevent the body falling. The knees should be relaxed. Get a good hold, raise your head which should begin the upward movement, and straighten your back at the moment of lifting.

Before attempting to lift any load, stop and assess the risk.

1. If you think you can't manage the load.

a) Utilise any appropriate mechanical or lifting aid available

- You must be trained to use handling equipment
- Equipment should always be checked prior to use
- Report any concerns regarding damage

Is it suitable for the task?

b) If the appropriate mechanical or lifting aid is not available, ask another person or persons to help you

- Lifting as a team does not mean you can lift more weight!
- Think about the dignity and safety of everyone including the patient
- Identify the lead to coordinate the move

2. You must be in charge of the load.

If in doubt, **STOP** and **SEEK** advice

Best Practice in Moving and Handling

The Principles of Base Movement

The following principles should be considered as features of good movement and should be integrated into all lifting and handling tasks.

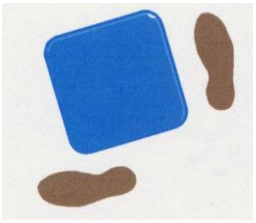
Think before handling.

- Plan the lift. Can handling aids be used?
- Where is the load going to be placed?
- Will help be needed with the load?
- Remove obstructions such as discarded wrapping materials.
- For a deep lift, consider resting the load midway on a table or bench to change grip.

Keep the load close to the waist.

- Keep the load close to the body for as long as possible while lifting.
- If the weight is unevenly distributed keep the heaviest side of the load next to the body.
- If a close approach to the load is not possible, try to slide it towards the body before attempting to lift it.

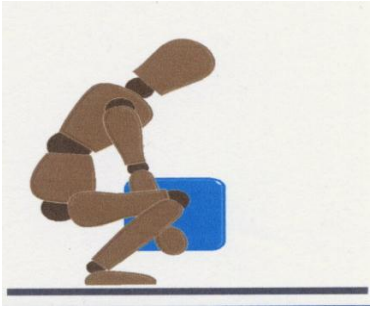
Adopt a stable position.



The feet should be apart with one leg slightly forward to maintain balance (alongside the load, if it is on the ground). The worker should be prepared to move their feet during the lift to maintain their stability.

- Avoid tight clothing or unsuitable footwear.

Get a good hold.



- Where possible the load should be hugged as close as possible to the body.
- This may be better than gripping it tightly with hands only.

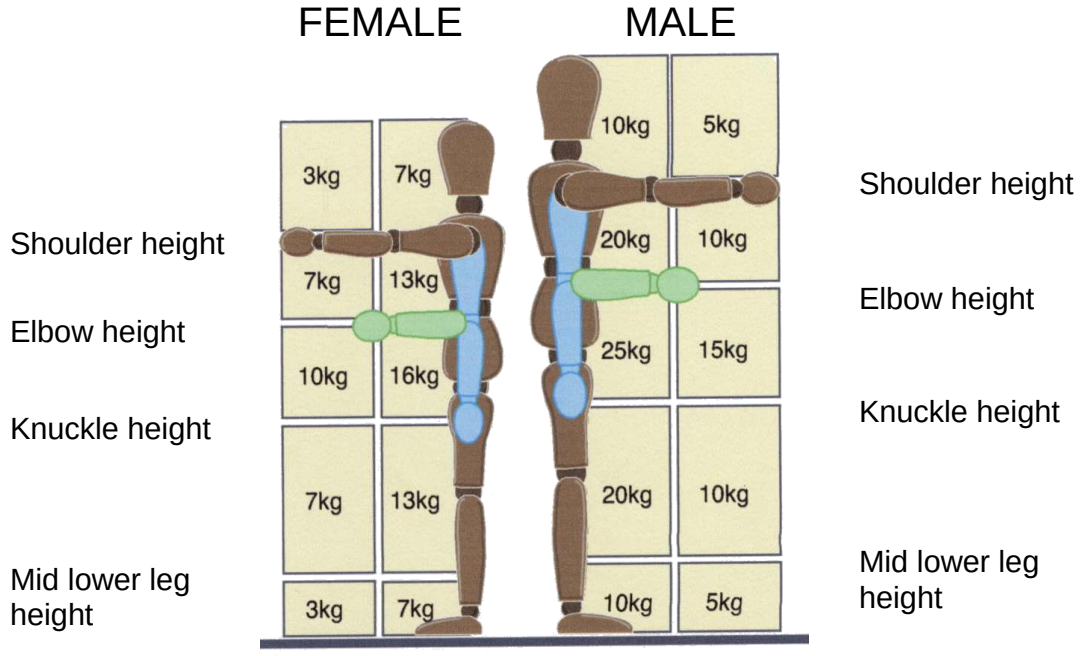
Start in a good posture.

- At the start of the lift, slight bending of the back, hips and knees is preferable to fully flexing the back (stooping) or fully flexing the hips and knees (squatting).
- However where possible keep your spine in line.

The chart below was developed by the HSE as a risk assessment filter to screen out straightforward cases. The filter is based on a set of numerical guidelines. The guidelines will provide a reasonable level of protection to around 95% of working people.

When pushing/pulling loads the guidelines assume the force is applied with 2 hands between knuckle and shoulder height.

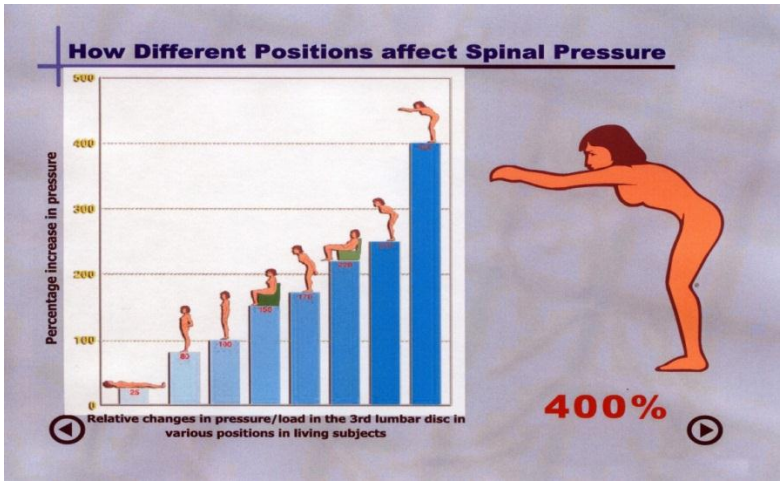
HSE Guidelines for Lifting and Lowering



Transferring the Load

We do it all the time, at home and at work, but we don't always do it right. Safe lifting isn't just a question of strength – it's a commitment to lifting correctly, every time you pick up or move something.

The picture below shows research into how different adopted positions affect the percentage of spinal pressure in your 3rd lumbar disc. The highlighted picture having the most risk, a **400%** increase just by leaning, stretching with a poor base, this is before a load is moved!!

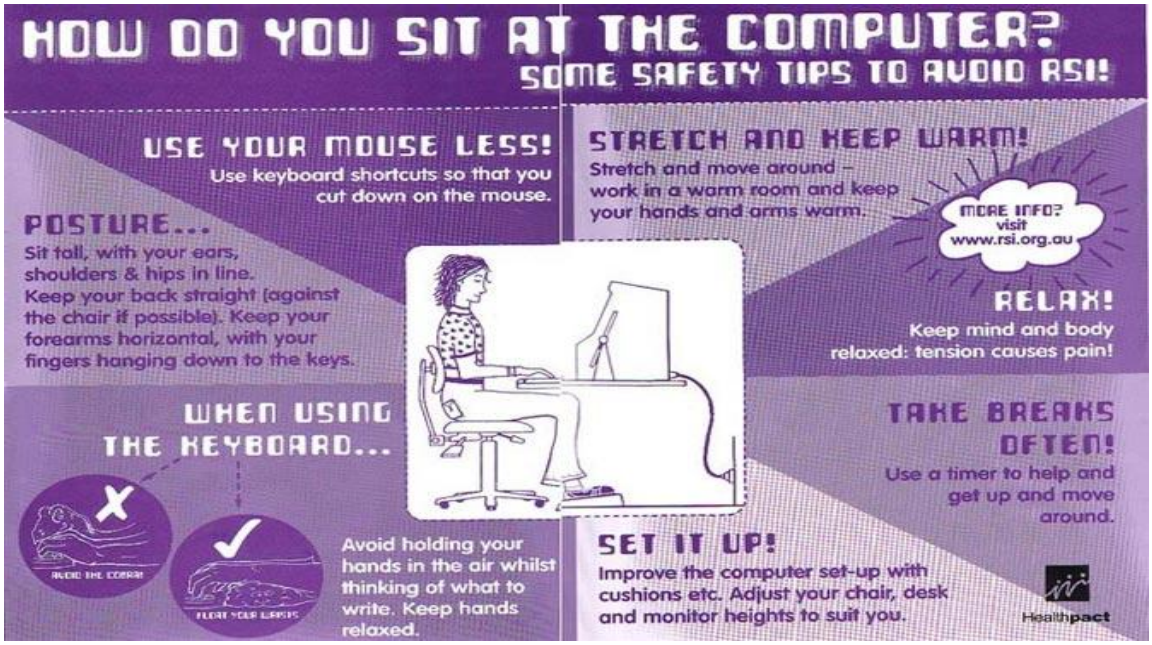


Effects on the body

Top heavy bending leads to:

- Stiffening of the muscles as the body attempts to safeguard balance;
- Pressure on the toes;
- Distortion of the discs due to compression of the vertebrae;
- Possible prolapse, muscle tearing, ligament damage,
- Progressive stiffening and poor posture over time.

Does my Visual Display Unit (VDU) affect my health?



The Health and Safety (Display Screen Equipment) Regulations (1992) require employers to minimise the risks in VDU work by ensuring that workplaces and jobs are well designed.

Who is affected?

The Regulations apply where staff members use VDUs as a significant part of their normal work. Others, who use VDUs only occasionally, are not covered by the requirements in the regulations.

VDUs have been blamed - often wrongly - for a wide range of health problems. In fact, only a small proportion of VDU users actually suffer ill health as a result of their work. Where problems do occur, they are generally caused by the way in which VDUs are being used.

Are aches and pains caused by using a VDU, laptop and tablet? What about 'RSI'?

Users may get aches and pains in their hands, wrists, arms, neck or shoulders especially after long periods of uninterrupted work. '*Repetitive strain injury*' (RSI) has become a popular term for these aches, pains and disorders. A better name is 'upper limb disorders'. Usually these disorders do not last, but in a few cases they may become persistent or disabling.

How can I avoid these aches, pains and disorders?

Problems of this kind may have a physical cause, but may also be likely if a User feels stressed by the work.

- Report aches & pains to your line manager.
- Problems can often be avoided by good workplace design, so that you can work comfortably, and by good working practices (like taking frequent short breaks).
- Prevention is easiest if action is taken early, before the problem has become serious.

Can work with VDU's affect eyesight?

Extensive research has found no evidence that VDUs can cause disease or permanent damage to eyes. But long spells of VDU work can lead to tired eyes and discomfort.

Also:

- By giving your eyes more demanding tasks, it might make you aware of an eyesight problem you had not noticed before.
- You can help your eyes by ensuring your VDU is well positioned and properly adjusted

- Checking that the workplace lighting is suitable.
- Ask for an eye test if you still think there is a problem.

Can VDU work cause headaches?

Headaches may result from several things such as: screen glare, poor image, a need for different spectacles, stress from the pace of work, reading the screen for long periods without a break, poor posture or a combination of the above.

How long should I work with a VDU?

There is no legal limit, but you need to break up long spells of VDU work.

What should I do if I'm pregnant?

You don't need to stop working with VDUs. Past concern, about reports of miscarriages and birth defects among some groups of VDU workers, has not been borne out by more recent research. Many scientific studies have now been carried out and, taken as a whole, these do not show any link between miscarriages or birth defects and working with VDUs.

If you are anxious about your work generally during pregnancy, you should talk to your Doctor, Line manager, Midwife or Occupational Health Service

Can working with VDUs cause skin disorders?

This is rare. A few people have experienced irritation, rashes or other skin problems when working with a VDU.

Can VDUs trigger epileptic fits?

Most people with epilepsy are completely unaffected by VDUs. A few who suffer from photo-sensitive epilepsy and are susceptible to flickering lights and striped patterns may be affected in some circumstances. But even they can often work successfully with VDUs without provoking an attack.

Is it true that using a mouse can cause problems?

Intensive use of a mouse, trackball, or similar pointing device may give rise to aches and pains in the fingers, hands, wrists, arms or shoulders. This can also happen with a keyboard, but mouse work concentrates activity on one hand and arm (and one or two fingers), and this may make problems more likely. Risks can be reduced by adopting a good posture, technique and working pattern.

Getting comfortable

- Adjust your chair and VDU to find the most comfortable position for you.
- As a broad guide, your forearms should be approximately horizontal and your eyes the same height as the top of the VDU.
- Make sure you have enough work space to take whatever documents or other equipment you need.
- Arrange your desk and VDU to avoid glare, or bright reflections on the screen. This will be easiest if neither you nor the screen is directly facing windows or bright lights.
- Adjust curtains or blinds to prevent unwanted light.
- Make sure there is space under your desk to move your legs freely. Move any obstacles such as boxes or equipment.

Keying in

- Adjust your keyboard to get a good keying position. A space in front of the keyboard is sometimes helpful for resting the hands and wrists when not keying.
- Try to keep your wrists straight when keying. Keep a soft touch on the keys and don't overstretch your fingers. Good keyboard technique is important.
- Click here "computing health and safety video"

ACTIVITY: Manual Handling

Do not forget to complete the on-line assessment on My PACT

Please note:

- If you achieve 80% or more you have been successful
- If you do not achieve 80% you will not be deemed as compliant with your essential mandatory training and will need to repeat the test.

For additional advice and information including details of practical training please contact Moving and Handling Team in The Education Centre on Ext: 1211/1882

You can also access the health & safety web site on the intranet or alternatively you can access www.hse.gov.uk Health and Safety Executive web-site.