



MOVING AND HANDLING OF OBJECTS

COURSE NOTES

BY

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MOVING AND HANDLING (PEOPLE)

COUNTING THE COST

More than a third of all over-three-day injuries reported to the HSE each year are caused by Manual Handling. Although most report back injury, it is also possible to sustain injury to other parts of the body (hands and feet are also vulnerable). Manual Handling injury can occur wherever people are at work.

Back injury costs the NHS an estimate of £480 million pounds per year and up to 30 million working days are lost.

PREVENTING INJURY CAUSED BY MANUAL HANDLING



It is possible to reduce and prevent injury caused by Manual Handling by carrying out a risk assessment prior to lifting, taking into account environment, load, individual, equipment available and the task at hand, and by implementation of good lifting practise.

WHAT IS MANUAL HANDLING?

Manual Handling is defined as:

"The transportation or supporting of a load (including lifting, putting down, pushing, pulling, carrying or moving) by hand or bodily force". HSE



WORKING UNDER THE LAW
The law states that employers must
ensure the health, safety and
welfare at work of all their
employees. Employees must work in
a safe manner taking reasonable
care of both self and others.
(Health & Safety at Work (NI)
Order (1978).

Everyone has a "duty of care" in the workplace. Some of these duties include:

EMPLOYERS DUTY	EMPLOYEES DUTY
Safe working environment	Work safely
Provision of equipment	Use equipment in a safe manner
Provide training & supervision	Report accident or injury
Have a safety policy	Cooperate with policy



INJURY TYPES AND COSTS:

SOME STATISTICS

- ✓ Manual Handling is the cause for 36% of injury in the workplace per year.
- ✓ 49% of injury reported in Manual Handling is back injury.

Other injury's you may sustain as a result of Manual Handling are: Prolapsed Disc, Sprains or Strains, Hernia, Fracture, Cuts and bruises

REPORTING INJURY

In the event of accident or injury occurring in the work place, an accident/ incident form must be completed and in certain cases RIDDOR should be informed.

R.I.D.D.O.R (reporting injury, disease or dangerous occurrence) is the centralised incident contact centre managed through the HSE.

You have a legal obligation to report any injury that leads to more than three days off work or a hospital admission for over 24hours.

Contact RIDDOR

Email: riddor@natbrit.com
Internet: www.riddor.gov.uk

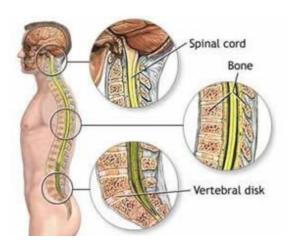
Tel: 0845 300 9923 Fax: 0845 399 9924



SPINAL ANATOMY

The 33 bones which make up the spine are called the vertebrae. The vertebrae allows for free movement such as standing upright, bending forward or sideways, rotating, and leaning back. Between each vertebrae is an intervertable disc. These have a strong outer fibrous layer and a soft jelly-like inner layer. The discs act as shock absorbers.

The vertebrae is divided into 7 cervical, 12 thoracic, 5 lumbar, 5 saccral and 4 coccyx (fused). The lumbar part of the spine is most likely to get injured as it is the main weight bearing part of the spine.



Always aim to keep the cervical curve and lumbar curve in place. This can be done by always looking up and never bending.



THE LEVER PRINCIPLE

Holding loads away from the body creates a lever effect on the spine, which in turn increases the load capacity which is placed on the spine, particularly in the lumbar region. The effort required by the back muscles increases according to how far the load is held away from the body.

It is possible to prevent leverage and decrease loading on the spine by keeping loads close to the body. When you use short levers the weight will feel lighter and there will be less tension in the arms, shoulder and back. In other words, stay near to the patient you are moving or handling.



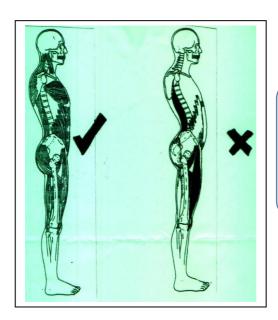
Holding loads away from the body increases the risk of injury.

Five common factors leading to back injury are: poor posture, weakness in spine due to age, obesity, poor flexibility, poor physical strength.

HOW GOOD IS YOUR POSTURE?

When sitting, ensure you have enough room for your legs and feet, and do not cross your legs. Desks should be at a height which prevents stooping or stretching. Work at a level which keeps hands at approximately elbow height. Keep your feet on the floor. If you experience lower back pain, a lumbar roll or small towel rolled and placed at the lower back will give added support to the lumbar region.

When standing make sure you have a stable base. This can be achieved by keeping feet shoulder width apart with knees soft. Shoulders should be down and back, with chin tucked in. Keep looking straight ahead to ensure the cervical curve is kept in place.



Do not over arch the lumbar area of the spine and avoid round shoulders to ensure the cervical curve remains in place.



MANUAL HANDLING PRINCIPLES

The Manual Handling Operations Regulations 1992 (as amended) state the hierarchy of measures are as follows:

✓ AVOID

o If it is possible do not perform the task. See if there are changes that can be made to avoid the lift.

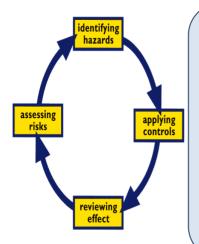
✓ ASSESS

o If the lift must be performed then it is important to carry out a risk assessment.

✓ REDUCE

 Reduce the risks to the lowest possible level by planning the lift and, when necessary, using appropriate equipment

RISK ASSESSMENT



By law a risk assessment must be carried out before any manual handling task is performed. A risk assessment will identify potential hazards and find a way to reduce them to the lowest possible level. It is important to remember that not all risks can be completely eliminated, but it is possible to make a task safer by implementation of preventative measures.



RISK ASSESSING

Risk assessment will give you the opportunity to determine the worst features of the work and see if it is possible to reduce the risks. Remember to act according to what the assessment says and operate within it. A manual handling assessment form is potentially a legal document and will be referred to in the event of an injury occurring during a moving and handling task.



How far do I reduce the risk?

Reduce risk to the lowest possible level to the point that the cost of further precautions would outweigh the benefits.

Must I always use equipment? If the risk assessment indicates that equipment should be used then you should provide them. However it depends on whether it is reasonably practicable to do so.

The risk assessment should be carried out by the employer. Employees can assist in determining the risks as they often more aware of the problems which exist. They should be made aware of how to safely overcome these problems. It is the employer's duty to provide the correct equipment for any manual handling tasks and to ensure all those using the equipment have been adequately trained to use it.



ASSESSING RISK USING T.I.L.E.

TASK

- What does the task involve?
- Does it involve twisting, stooping or bending?
- Do you have to cover a far distance?
- Do you need other handling aids to help with the task?

INDIVIDUAL

- Endanger those with a health problem?
- Would the task endanger pregnant women?
- Does it require unusual strength?
- Does it require specific training?

LOAD

- How heavy or bulky is the load?
- Is it difficult to grasp or hold?
- Is it unpredictable or unstable?
- Is it intrinsically harmful?

ENVIRONMENT

- Is the lighting good?
- Are you working in a confined space?
- Are there other hindrances that would restrict movement?
- Is the floor slippery, uneven, or wet?
- Are there hot/cold or humid conditions?



EQUIPMENT REGULATIONS

PUWER – Provision and Use of Work Equipment Regulations (**PUWER**) 1998.

These regulations require that the equipment used is both suitable for use and safe to use. Equipment needs to be kept in a good state of repair and only used by people who have received appropriate and adequate training.

LOLER – Lifting Operations and Lifting Equipment Regulations (LOLER) 1998

These regulations are for any equipment used to lift or lower loads. They require that such equipment (eg, hoists) be checked every six months if lifting people, and every twelve months if equipment lifting. The regulations include how the equipment is stored and used, and also covers any accessories used with the equipment, such as slings.

HOW TO SAFELY USE EQUIPMENT

- Before each use check equipment is in good working order.
- Do not use equipment you have not yet been trained to use.
- Use equipment in its proper use for the appropriate task. Store in a safe manner after use.
- Put out of use defected equipment and report if it is unsafe to use. If in doubt, do not use!





USING LIFTING EQUIPMENT



There are many different types of lifting equipment available. Never use a piece of equipment you have not yet received training on.

Work equipment should be suitable to purpose and only used for operations it was designed to be used in.

The user's health and safety should be a high priority and proper training should be given to the user.

Equipment should be kept in a good state of repair and be in efficient working order.

Defective equipment must be put out of use and a suitable alternative provided.

A maintenance log should be kept and updated regularly. In most cases equipment will require routine planned maintenance work and regular inspection.

Equipment should be stored safely.

If in doubt of the safety of the equipment then do not use.



BACK STRENGTHENING EXERCISES

By strengthening certain muscles you can help protect the back. These include back muscles (erector spinae group) and abdominal muscles.

Choose exercises which strengthen the core, such as swimming or pilates.



The Plank

Lie on Stomach and balance on toes and forearms. Tighten stomach muscles. Keep back and legs straight. Hold 10 secs then relax. Repeat.



Hand Knee Balance

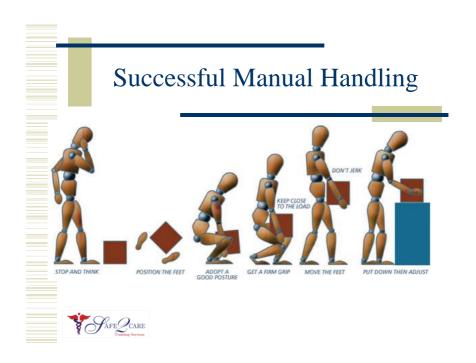
Begin on all fours with arms directly under shoulders and knees directly under hips. Reach out with one arm parallel to back, and opposite leg. Balance for count of ten. Switch sides.



Superman Lifts

Lie flat on stomach with one arm by side and the other stretched straight ahead. Look down keeping head in line with spine. Raise one arm (palm down) and opposite leg. Hold for ten seconds. Change sides.





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