

## About this course

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This workbased learning course has been written to the National Standards and to meet the specifications for the ASET Level 2 Certificate in Moving and Handling. The course comprises of 2 units however, depending upon your job role, you may be advised to do a third unit. Your tutor will advise you.

This workbook covers Unit 1, when you have completed it your tutor will give you your second unit.

When both units have been completed and you have achieved the required standard, you will receive a certificate from ASET, the Awarding Body. The course has been designed for those people who are working towards this Certificate, however it can be used by anyone who has to move objects and/or people and wants to work more safely.

## The learning information

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The learning information in this book deals with **Unit 1 of the Certificate in Moving and Handling**.

**This unit is called - Introducing Moving and Handling.**

When you have finished the unit you will have gained knowledge of:

- ◆ the principles of safer moving and handling
- ◆ an awareness of relevant health and safety legislation
- ◆ the importance of workplace observation
- ◆ an overview of the methods used to reduce the risk of injury.

You will develop an understanding of how back injuries may occur when moving and handling inappropriately and the importance of good posture to minimise risk of injury.

**There are 4 Elements to this unit:**

<b>Element 1</b>	<b>Legal requirements</b>
<b>Element 2</b>	<b>Facilitating factors</b>
<b>Element 3</b>	<b>Musculoskeletal problems</b>
<b>Element 4</b>	<b>Reducing the risk</b>

The first page of each element sets out the detail of what you will learn in that element.

## Your workbook

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Once you start working through the book, you will meet ideas and information about manual handling. Compare it with your own knowledge and experience. Don't simply accept the information as true, discuss it with your supervisor, trainer or the people you work with.



## Your workbook

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Throughout the book you will find Activities.

### **Activities are self assessed**

They should not take too much time to complete, and you won't be asked to write very much, just to make some notes. It is far more important that you think carefully about the topic than write a lot. You can check your answers as you go along and also with those at the end of the book.

### **Meet Dennis**

Dennis is an industrial photographer who is often called to take photographs of places where accidents or incidents have happened. Some of the activities are case studies taken from Dennis's collection. These case studies will help you to think about the information you have just read and bring it to life.



You will also find tasks in the Assessment Booklet provided inside the back cover. These should be completed and sent to your tutor for marking.

### **Assessments are tutor assessed**

Above all, this book is yours, so don't be afraid to jot down notes or thoughts in the margins. If you don't agree with anything, don't be frightened to say. The whole idea of doing this course is to help you to become better at your job, so try to relate what you do and read, to the things you do at work. Good luck and enjoy the course.

## This is your first exercise

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Before you begin working your way through the book, find out who is the person responsible for health and safety in your organisation. This person should be able to answer all your questions. If they can't, they will know where to find the answers. Write their name and details below.

**The person responsible for health and safety in your organisation is:**

**His/Her location is**

**Telephone and/or extension number**

**Other information**



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## Element 1: Describe the legal requirements for safe moving and handling

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To satisfy the standards for this element you need to show that you can:

- ◆ Explain three possible costs or effects of typical moving and handling injuries occurring in the workplace
- ◆ Identify the responsibilities placed by the Health and Safety at Work Act (1974) on employers and employees
- ◆ Identify a set of regulations related to the HSAWA 1974 and explain the responsibilities imposed on the employer and employee
- ◆ Describe the actions to take in the event of a moving and handling accident

By the time you have finished this section you will know :

- ◆ The definition of manual handling operations
- ◆ Accident statistics applicable to moving and handling
- ◆ Current and applicable health and safety legislation and regulation and their application in the workplace
- ◆ The action to take in the event of an accident/dangerous occurrence



## Introduction

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Whilst working through this course you will continually come across the term 'manual handling'. This is the term used for moving an object or a person. In the care sector, the term 'lifting' is no longer used, as workers in this area no longer lift in case of risk of injury.

## Mind your back

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More than a third of all injuries reported to the HSE and local authorities, which lead to three or more days off work, are caused by manual handling.

Millions of hours of lost work are caused every year by us not looking after our backs. The cost to industry is enormous, regardless of the cost to ourselves in pain, suffering and loss of earnings. Most people will be able to remember a back injury happening at some time in their lives.

Consider these occasions when Jim's back gave him trouble:

"The first time I hurt my back happened when I tried to pick up both my daughters at the same time. They came running up to me and I just swept them up in my arms. I knew straight away that I had hurt myself. You see, they were of different weights and I sort of twisted a little as I lifted. The second time was even more silly. We had this two-door car and as I got out I just twisted to pull my seat forward to let the passenger out. I felt this twinge and knew what had happened. Luckily the second one happened while there was a test match on TV. I just spent four days on my back watching England lose. I'm not sure which was more painful."



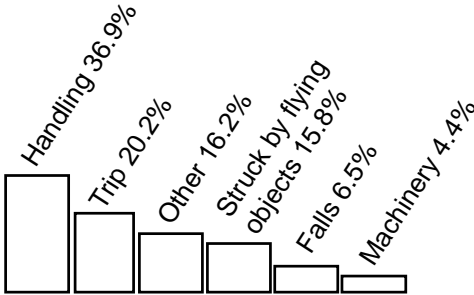
# Jim's experience

Jim's experience shows just how easy it is to damage your back. Imagine how much more likely the back is to be hurt if you move people or objects every day as part of your work.

## Three or more days off work

When an injury or illness leads to three or more days off work, then it is usually quite serious. More than a third of all injuries of this kind reported to the HSE are caused by manual handling. The chart below shows a breakdown of the three day injuries reported in 1998/9.

Three day injuries reported in 1998/9



So, apart from the cost to the victim of restricted movement, possible loss of job and increased workload for colleagues, the employer can risk legal action, increased insurance premiums and staff shortages.

It is estimated that in 1995, an average of eleven working days per employee were lost through back problems at a cost to industry and indirectly, you and me, of £335 million. It is common sense therefore to take it seriously.

## Activity 1 (Self assessed)

The most common injury at work is as a result of manual handling. Why do you think this is the case?

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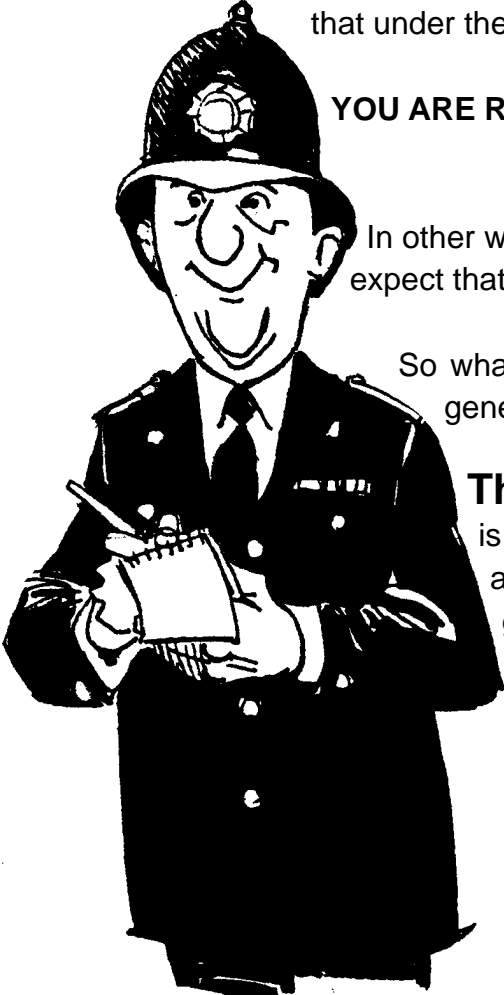
.....



**The laws**

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You do not need to know about the laws in detail but it is important to understand something about how they affect you at work. This means more than just knowing about your rights. It is important to understand that under the law ...



**YOU ARE RESPONSIBLE FOR THE HEALTH AND SAFETY OF OTHERS AS WELL AS YOURSELF.**

In other words, you have rights, but other people have a right to expect that you will work in a safe and responsible way as well.

So what are the main laws concerning health and safety in general and manual handling in particular?

**The Health and Safety at Work Act, 1974**

is the law you will hear most people refer to when they are talking about health and safety. It sets out some guidelines for employers, employees and visitors.

**The Act is about proper working conditions and it gives protection to people at work.**

The general duties under the Act are:

**‘.....to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all employees.’**

**Activity 2 (Self assessed)**

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The regulations that followed the Act cover every aspect of health and safety at work but there is no need to worry about every detail. There are however some important general issues you need to know about.

**What is the 1974 Health and Safety at Work Act about ?**

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.....  
.....  
.....



## The employee's duties under the Act

All of us have a duty to take care of ourselves and other people who may be affected by our work. We also have a duty to co-operate with our employers on all matters of health and safety.

## The employer's duties under the Act

The employer's **responsibilities** under the 1974 Act are of three types.

- 1 Firstly, there are steps that an employer **must take**.
- 2 Secondly, there are steps which employers **should take** where practicable.
- 3 Finally, there is a responsibility to take action **so far as is reasonably practicable**. \*

As you can see, some of these are open to interpretation.

The **duties** placed on employers by the law are that they should so far as is reasonably practicable:

- ◆ provide and maintain safe plant and systems of work
- ◆ provide information, instruction, training and supervision
- ◆ ensure absence of risk in connection with the use, handling, storage and transport of articles and substance
- ◆ maintain the place of work plus access and egress (the way out) to it so that it is safe and without risk to health
- ◆ provide and maintain a working environment, so that it is safe and without risk to health



'Just a little light bedtime reading for you, Julie.'

Employers must also discuss health and safety issues with their employees. This means that if a decision involving work equipment, processes or organisation could affect the health and safety of employees, then they must be asked for their opinion on any changes. Simply giving out information is not enough.

\*Under the law 'so far as is reasonably practicable' means to balance the cost (time, money, inconvenience) against the risk (injury, damage).



**Other issues**

Other issues where employees should be consulted include:

- ◆ information on likely risks and how to deal with them
- ◆ planning of health and safety training
- ◆ what may happen if new technologies are introduced

**The duty to consult is a matter of law.**

**Activity 3 (Self assessed)**

i) Under the 1974 Act, who is responsible for Health & Safety ?

The Employer       The Employee

ii) The employer has three types of responsibility. What are they ?

.....  
.....  
.....

iii) What are the employee's duties under the Act ?

.....  
.....

**Management of Health and Safety at Work Regulations 1999**

At this stage it is worth mentioning that in 1999 further regulations were introduced to deal with the management of health and safety. An employer must make appropriate arrangements for health and safety within their company. This includes planning, organising, controlling, monitoring and reviewing health and safety measures and recording the whole process.

**The Health and Safety Executive**

It is the job of the Health and Safety Executive (usually known as the HSE) and their inspectors to make sure that the laws on health and safety are applied. There are exceptions however, for example, Northern Ireland has its own laws on health and safety.

The HSE also advises the government on aspects of health and safety.

**The Inspectors**

Most places of work are safe and most employers make every effort to make sure that their staff are not in any danger, but this is not always the case. HSE Inspectors, Fire Officers and Environmental Health Inspectors have the right to enter any workplace. Their prime role is to offer advice but they can issue notices which have the force of law. Improvement Notices require employers to take action within a set period of time. If a Prohibition Notice is issued it takes effect immediately and means that whatever is happening that is dangerous must stop straight away. Trying to stop inspectors doing their job can result in a large fine, and both employers and staff can be prosecuted.



**Remember**

**Everyone** is responsible for health and safety, not just the company and managers. If someone does act without thinking and causes injury to other staff, the courts may impose a large fine on the person who is responsible, or even send them to prison.



**Activity 4 (Self assessed)**

Please read the following three questions prior to attempting this exercise:

i) What do the letters HSE stand for ?

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ii) What does the HSE do ?

.....

.....

iii) What two things can the HSE inspectors do if they find unsafe working conditions or practices ?

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.....



## The European Directive

The 1974 Act established the general responsibilities of employers and employees for health and safety. In 1998 the European Commission set out directives for all member governments requiring specific health and safety duties; this was termed the European Six Pack. These regulations do not replace anything that is required by the 1974 Act, but they are in addition to and set out more detailed regulations in particular areas. Appropriate to this guide are the Manual Handling Operation Regulations 1992.

Some of the important parts are:



- ◆ risks of injury should be reduced so far as is reasonably possible by avoiding manual handling
- ◆ if manual handling cannot be avoided then it must be assessed
- ◆ the object of assessment is to reduce the risk of injury
- ◆ that staff should be provided with adequate health and safety training and given information on the load
- ◆ that an employee's capabilities should be taken into account by an employer when planning for health and safety at work where reasonably practicable

### In addition:

In addition, the regulations insist that employees must follow any instructions or training given by an employer in any activity which is carried out by the employee. In particular they require employees to make full and proper use of appropriate equipment provided for them.

**In other words**, it is the responsibility of the employer to provide health and safety training and necessary equipment, while **it is up to you**, as an employee, to make sure that it is put into practice.

The regulations do not set out particular limits. For example, they do not specify a maximum weight that should be carried by one person, but they do say that risks of injury should be reduced to a minimum.

This might mean using mechanical or electrical machines to help with moving and handling. However, you should remember that these machines might have risks of their own to health and safety.

## LOLER - Yes we have spelt it correctly! It is not a Latin beauty!

LOLER actually stands for the **L**ifting **O**perations and **L**ifting **E**quipment **R**egulations 1998, which apply to all lifting equipment, whether existing, second-hand, leased or new. The Regulations require:

- ◆ lifting equipment to be - suitable, strong, stable, marked with the safe working load
- ◆ load and lifting attachments to be - strong, stable
- ◆ lifting operations to be - supervised and safely conducted
- ◆ inspection, test, thorough examination - minimum, or devised by a competent person
- ◆ documents - record-keeping and evidence.



**Please note**

None of the explanations of the Acts and Regulations given are comprehensive. They are a summary of what you need to know for this course, but perhaps above all you need to remember that if you do not feel safe or confident to carry out any task, then you are empowered to say 'NO'.

**Activity 5 (Self assessed)**

One of the worst jobs Dennis was asked to do was for an insurance company. He was asked to take some photographs to show how a lady fell down a flight of stairs whilst moving a bed with a colleague.

Two ladies, Doreen and Brenda, had been moving a bed from one room which was about to be decorated to another. The rooms happened to be at the top of a flight of stairs. As Brenda was busy opening the door behind her, she inadvertently pulled her end of the bed, causing the other end to swing round on its castors. This resulted in Doreen, who had been talking to a colleague at the bottom of the stairs, being knocked off balance. She fell down the stairs, seriously injuring herself in the process.



When asked what happened, Brenda said, 'We had done this sort of thing dozens of times before without any problem. I didn't realise as I reached to open the door behind me that I was pulling on the bed making it swing.' Doreen did not make a full recovery and had to retire with ill health.

**Who do you think is responsible and why?**

The employer, Doreen, Brenda, all of them?

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.....

This is something you could discuss with your assessor.



### Activity 6 (Self assessed)

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i) What do the 1992 Manual Handling Regulations say about:  
a) the risk of injury ?

.....  
.....

b) staff training ?

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c) employee's capabilities ?

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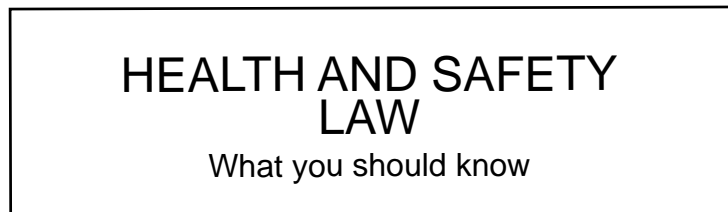
ii) What is the maximum weight which one person should carry ?

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### At your place of work

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Somewhere in the building where you work there should be a notice which says:



Underneath there is information about the 1974 Act and risk assessment. It confirms that you are protected by the Act and that your responsibilities are to look out for yourself and others. Make sure that you know where this notice is and either read it or get somebody to explain it to you.

There should also be a health and safety policy for your organisation. If it has not already been given to you, ask the person responsible for health and safety for a copy and make sure you find out about it.

### Five or more

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For all organisations which have five or more staff there must be a written health and safety policy which must be communicated to all staff.



## Activity 7 (Self assessed)

Do you know where your health and safety notice is located ? If you can't find the notice, who could you ask about it? Who is the person who deals with matters of Health & Safety in your organisation ?

Complete the sentence below:

The Health and Safety notice is located in/near...

The competent person in charge of health and safety in my organisation is....

## First Aid

Sooner or later someone in your workplace may be injured. It may not be a life threatening injury, but when it happens you will need to know the correct procedure. The Health & Safety (First Aid) Regulations 1981 state that workplaces should have, First Aid boxes and someone who is appointed as a trained first aider. It is important that you know the whereabouts of the First Aid box and who your First Aider is. This information should also appear on notices around your workplace.

The First Aid box should be easily identified by a white cross on a green background.

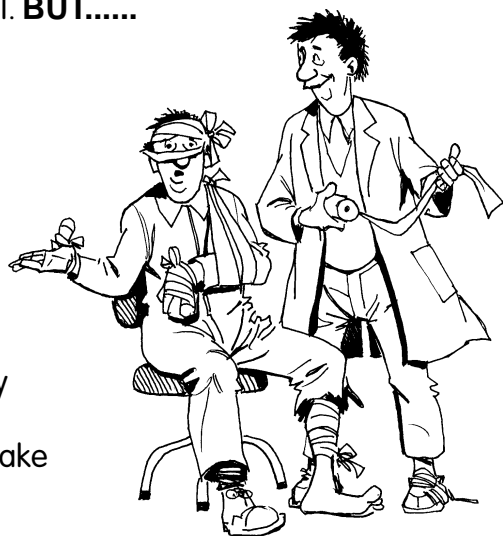
The box should contain;

- a card giving advice on general first-aid procedures
- sterile adhesive dressings
- sterile eye pads
- triangular bandages
- safety pins
- other items as required

If an accident should occur which causes someone to be injured, and first-aid has to be given, stay calm and try to reassure the injured person by appearing confident and in control. **BUT.....**

**.....unless you have been trained, you should not try to administer first aid to others, instead send for someone (as quickly as possible) who has been trained.**

If the accident has been caused by something which has been spilt on the floor, or a broken fixture, make sure that the source of the accident is removed as soon as possible and reported.



## Activity 8 (Self assessed)

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Where is the first aid box in your workplace located?.....

How is the box recognised?.....

Write down the name of your first aider.....

### Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.

# R I D D O R

Finally in this section we must look at RIDDOR. That is the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. We all learn from our mistakes and in order that we may all learn lessons from accidents around the workplace, it is very useful for them to be reported. To this end the government brought in these regulations

RIDDOR applies to employers, self-employed people and anyone in control of a place of work. This doesn't mean that as an employee you can ignore RIDDOR, because everyone has a responsibility for health and safety. Besides, in the future you may be working in a supervisory position, so everyone should have some idea of what the regulations say.

The regulations say that work-related accidents and illness of a certain type should be reported to the HSE. This is so that HSE can help and advise on how to prevent similar problems occurring in the future. The part of RIDDOR which is relevant to safer moving and handling concerns dangerous occurrences and injuries, (including acts of non-consensual violence).

### RIDDOR major injuries

There is a clear definition of what major injuries are. They include:

- ◆ fractures, unless they are to the fingers, thumbs or toes
- ◆ amputations
- ◆ dislocation of the shoulder, hip, knee or spine
- ◆ loss of sight

Other reportable injuries include chemical burns, electric shock and breathing in harmful substances, if they lead to unconsciousness or admittance to hospital for more than 24 hours.

### Dangerous occurrences

These are events which may not have resulted in a serious injury, but might have done in different circumstances. They should be reported immediately, and followed up later with a written accident report within ten days. Dangerous occurrences include the collapse, overturning or failure of load-bearing lifts and lifting equipment.



## Death can be fatal

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Death or a major injury must be notified to the HSE straight away, by telephone or fax and then followed up by a written accident report within ten days. The regulation applies to all people on your site whether they be a patient, client, a member of staff, a self-employed person or a member of the public.

If the problem is the result of violence, that too should be reported to the HSE.

## Minor accidents

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Every organisation should have an accident book and a policy for dealing with accidents and incidents however minor. The accident book can help to reduce hazards in the future, and makes sure that even small injuries are given proper attention. This is important, because sometimes small injuries can lead to more serious problems later.

Think about what would be needed in an Accident Report Book.

Here is a check list:

- Nature of injury
- Where the accident happened and the time
- Cause of the accident
- Treatment given and by whom
- Treatment accepted or refused
- \*Name, address and occupation of injured party
- \*Signatures of injured party and first aider

\*In order to comply with the Data Protection Act 1998, personal details of individuals should be stored separately, in a secure location.

## Activity 9 (Self assessed)

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i) What do the letters R I D D O R stand for?

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ii) Why should certain accidents be reported to the HSE ?

.....

iii) Give three examples of reportable injuries.

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.....



**continued.....**

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iv) Give an example of a dangerous occurrence at your workplace.

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.....  
.....

vi) Where is your company's Accident Report Book kept?

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vii) Why is it necessary to write reports in the Accident Report Book?

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.....

**In addition.....**

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In addition to a policy dealing with accidents your company should also have a policy for sickness - who to notify if you are ill etc. and a medical certificate policy.

Make sure you know your company's policies for all these eventualities.

**Now try the assessment for this element,  
Assessment 1**



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## Element 2: Understand the importance of good posture and other factors which facilitate safer moving and handling

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To satisfy the standards for this element you need to show that you can:

- ◆ Describe three handling techniques for lifting that avoid postural stress
- ◆ Describe two safety factors which could be considered when assessing an identified load
- ◆ Describe one environmental factor to be considered when moving a load in an identified situation

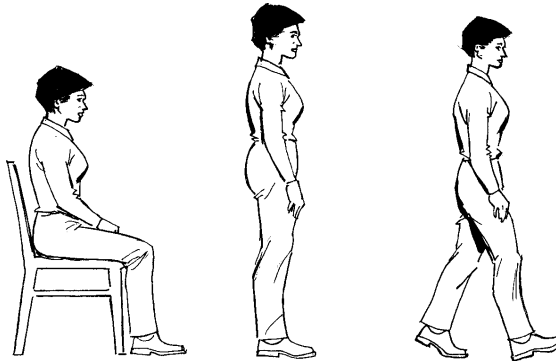
By the time you have finished this section you will know :

- ◆ How to recognise the correct handling techniques for lifting (avoiding postural stress)
- ◆ How to consider the load
- ◆ Environmental factors



## Are you sitting comfortably? - Then I'll begin..

Good posture is something from which we can all benefit, no matter what our work. Correct sitting, standing and walking positions are the basics of good moving technique. Good posture not only gives the best support to the back, it can also conserve energy. In the context of moving and handling and trying to prevent injury, looking at posture is a good place to start.



**When sitting**, both feet should be flat on the floor and knees level with hips. Sit with the back firmly against the back of the chair. A small pillow between the lower back and the chair back can give support in the right place.

**When standing**, you should stand as straight as possible.

**When walking**, keep your head high, tuck in your chin slightly, keep your abdominal muscles tight, and tilt your pelvis to maintain a natural low back curve.

The following rest positions can help relieve back tension by straightening the spine:

- ◆ Stand upright and place your hands in the small of your back; bend backwards slowly and hold this position for 30 to 60 seconds.
- ◆ Sit on a chair. Lean forward and lower your head to your knees. Hold for 2 to 5 minutes.
- ◆ Lie with your back flat on the floor and place your legs on a chair. For best results hold this position for 15 minutes.

Acquiring the skills to move objects safely at work may be futile, if you then slouch in the car on the way home and slump in front of the television. All the good work done in using the correct principles may be lost through poor posture. It makes sense therefore, to use these lessons twenty-four hours a day, not just at work. In addition, a morning and evening routine of gentle stretching exercises can strengthen the back and help to reduce the risk of injury further.



## **Sleep on it**

Sleeping takes up one third of your life. It is important that you sleep on a firm mattress. Sleep on your side with your knees bent or on your back, preferably with a pillow under your knees. Sleeping on your stomach can cause back strain.

## **Shake a leg**

Exercise is important for maintaining the back's natural curve and for strengthening the back and abdominal muscles. These muscles will support your back and help protect it from injury and strain.

## **Activity 10 (Self assessed)**

Give 3 instructions for good posture when sitting:

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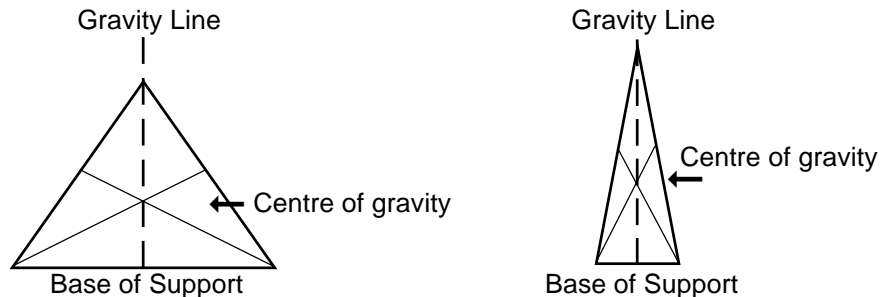
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Over the next few days, monitor how good your posture is. Do you sit and walk in a way which is good for your back? Observe others, tell them what you are doing and discuss good posture with them.

## **Gravity**

Understanding something about gravity can also contribute to reducing the chances of back injury occurring. For example, we all recognise that standing with the feet together provides an unsteady base. In a crowd, you may be knocked over if you stand still, keeping your feet close together. If you move them apart a little, you have a more solid foundation. Every object has a centre of gravity. The narrower the base, the higher the centre of gravity: the wider the base, the lower the centre of gravity, the more stable the object.



Knowledge like this can help you with any moving of objects. For example, whenever you have to move an object, make sure first of all that your feet are apart, forming a solid base. Secondly, make sure that your knees are bent and your back is in a natural line. For most people, the largest and most powerful muscles in the body are in the thighs. These are the muscles that should be used, not the weaker muscles around the spine.



## When it cannot be avoided

When handling a load cannot be avoided we should assess what we have to do and find the safest way possible. Do you need another member of staff to help? Make sure that you are wearing suitable clothing and in particular, any personal protective clothing or equipment given to you by your employer. Make sure that you are in a stable position and have a suitable grip on the load. Keep your head up and move smoothly. Considerations before you begin can be looked at under the following headings:

- 1 the task**
- 2 the load**
- 3 the environment**
- 4 the capability of the mover**

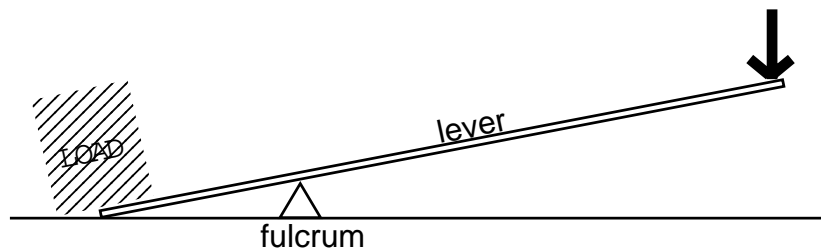
### 1 The Task

There are handling techniques for lifting and carrying that avoid postural stress, let us look at what they are.

#### 1 *Carrying a load*

When carrying a load, it is always best to carry it as close to the body as possible. Do not hold loads away from the body. Having to reach away from the body increases pressure on the lower back and raises the risk of injury. To understand why, you need to know a little about levers.

One of the mechanical aids to raising an object is the lever. The lever is placed underneath the load, passed over something which acts as a fulcrum and then pressing down on the lever raises the object. The longer the lever, the more weight can be lifted. There is less pressure on the person pushing on the lever, but more pressure on the lever itself.



Now, if you imagine that your arms are levers, you can see how the pressure on you is increased the further away from your body you try to lift.

