What is manual handling?

The Manual Handling Operations Regulations define it as ‘any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying, or moving thereof) by hand or be bodily force’

What are the risks of manual handling?

More than a third of all reportable injuries of over three days involve manual handling. And around 10% of major injuries are linked to manual handling. It has a major impact on all workplaces and costs the economy hundred of millions of pounds every year.

In the UK, 1.1m people reported that they suffered from musculoskeletal disorders (MSDs) caused, or made worse, by work. It is estimated 12.3m working days are lost annually due to work-related MSDs.

Anyone involved in the moving and handling of goods and people could be at risk. Injuries and suffering can be linked to any work involving handling loads. There are risks in handling even light loads if a repetitive task is being carried out in poor conditions. Poor ergonomics and workplace layout are a factor in many hazardous manual handling tasks.

Risks can be found in all work sectors, but healthcare, agriculture and construction are recognised as high-risk industries due to the number and nature of the manual handling activities.

Legal duties and obligations around manual handling

The Manual Handling Operations Regulations state that employers should adopt a hierarchy of control measures:

1. To avoid hazardous Manual Handling Operations so far as is reasonably practicable
2. To assess any hazardous Manual Handling Operation that cannot be avoided
3. To reduce the risk of injury so far as is reasonably practicable.

Assessing manual handing risks

One way to assess manual handling activities is to look at four specific areas – Task, Individual, Load and Environment (easily remembered by the acronym TILE)

As with any assessment, the workforce should be involved in the process, and use should be made of any relevant guidance available for particular industries.

Key factors to consider in each element are:

1. *The Task* – Does the activity involve twisting, stooping, bending, excessive travel, pushing, pulling or precise positioning of the load, sudden movement, inadequate rest or recovery periods, team handling or seated work?
2. *The Individual* – Does the individual require unusual strength or height for the activity. Re they pregnant, disabled or suffering from a health problem. Is specialist knowledge or training required?
3. *The Load* – Is the load heavy, unwieldy, difficult to grasp, sharp, hot, cold, difficult to grip, are the contents likely to move or shift?
4. *The Environment* – Is there space constraints, uneven, slippery, or unstable floors, variations in floor levels, extremely hot, cold, or humid conditions, poor lighting, poor ventilation, gusty winds, clothing, or Personal Protective Equipment that restricts movement?
5. *The Equipment* – Is the equipment available, suitable for the task.

Controlling risks from manual handling

Aa with any other risk, if you can eliminate or avoid the risks from manual handling, this is by far the best option. You should try to remove as many of the constraints as possible to reduce the risks to as low a level as reasonably practicable.

An ergonomic approach is recommended – look at how the task can be fitted to the individual.

Consider whether mechanical handling aids could be used, this could range from a simple trolley or sack truck to more sophisticated aids such as conveyors or forklift trucks.

If you cannot eliminate or mechanise the manual handling tasks, you must carry out a risk assessment where the task could present a risk of injury. You need to look at ways to reduce the risks to as low a level as reasonably practicable.

Basic principles of manual handling

There are some basic principles that everyone should observe prior to carrying out a manual handling operation:

* Ensure that the object is light enough tot lift, is stable and unlikely to shift or move
* Heavy or awkward loads should be move using a handling aid
* Make sure the route is clear of obstructions
* Stand as close to the load as possible, and spread your feet to should width
* Bend your knees and try and keep the back’s natural, upright posture
* Grasp the load firmly as close to the body as you can
* Use the legs to lift the load in a smooth motion as this offers more leverage, reducing the strain on your back
* Carry the load close to the body with the elbows tucked into the body
* Avoid twisting the body as much as possible by turning your feet to position yourself with the load

The main causes of manual handling injuries

People working in different types of jobs obviously face a range of different hazards. For example, an office worker is much less at risk from burns than a chef – but there are a range of common accidents and injuries which occur across all occupational sectors – and trips/slips and falls invariably top the league.

In 2007/08, these accounted for almost four out of every ten major workplace injuries. Other national statistics for the same year show that the most common ‘over-three-day injury’ was cause by handling, lifting, or carrying.

A total of 229 people were killed at work although this equates to just 0.8 per 100,000 workers, it is still a lot of lives lost. (Long term, death rates have fallen, but the fatality figures have changed very little over the past six years.

The most commonly cited workplace hazards involved in accidents/illness were manual handling, sitting for long periods and the handling of harmful substances.

More than 2 million people believed that their current or previous type of work had cause them to suffer and illness or made a previous illness worse.

Overall, the three most common types of accident/injury were:

* Trips/slips or falls
* Electrical incidents
* Manual handling/lifting

Some of the most common injuries were:

* Sprains and strains
* Back injury
* Head injury
* Neck injury
* Repetitive strain injury

Other les common injuries/illnesses in the workplace include occupational asthma, deafness, vibration white finger and dermatitis.

(Vibration white finger can cause the fingers to tingle, become numb or make it difficult to grip. The damage is usually irreversible and usually cause be excessive hand/arm vibration.)

Business Sectors

Agriculture tops the table when comparing accident figures between different business sectors with 2240 injuries per 100,000 workers, followed by Construction (1550) and Transport (1350).

Sectors reporting the lowest injury rates were Finance (310) and Education with 610 per 100,000.

Fatal Accidents

In 1999/2000, there were 117.3 reported ‘fatal and major injuries’ nationwide per 100,000 employees and although there was a blip between 2003-2005, this has continued to reduce and in 2007/08, it had dropped to 106.6.

Figure collected from 1996-2008 show that almost every year, the most common cause of fatal injuries was falling from a height. This was followed by transport accidents (which includes being hit by a vehicle or falling from a vehicle).

However, hundreds of people also died after being struck by a moving or falling object or being trapped by something falling or collapsing.

The type of vehicles involved in injury accidents over this 12-year period included cars, trucks, and vans – but the highest level of injuries were related to forklift truck accidents.

There are an average of 1500 injury accidents involving forklift trucks every year – and research suggests that a high percentage of these are due to a lack of training for forklift drivers or poor maintenance of the truck.

Most Common Risks

Overall, slips/trips and falls or damage cause by manual handling/lifting remain the main culprits of injury in the workplace.

The good news is that the government have set targets under the Revitalising Health and Safety initiative to reduce injuries and the latest available figures show that the rate of both fatal and over-three-day accidents in the UK is substantially lower than in most other EU countries apart from Sweden and Ireland.

Unsafe/High Risk Moves

There are a number of ‘traditional’ techniques which are now considered unsafe, and which must no longer be used.

Legally it is the Manual Handling Operations Regulations 1992- made under the Health and Safety at Work Act 1974 – which govern all manual activities, and to which reference should be made; the important publication here is Manual Handling, Manual Handling Operations Regulations 19992, Guidance on regulations L23 (Health and Safety Executive 1992).

All unsafe/high risk moves have either caused injuries to NHS and private sector patients, handlers, or both, and as a consequence, have features in court cases.

There are no longer considered to be good practice and must not be used.

A handler injured when using any of these techniques would find it difficult to obtain compensation; a patient injured when being handled by any of these methods would find it easy to do so.

*The Drag Lift* – This includes any way of handling the patient in which the handler places a hand or an arm under the patient’s axilla (armpit), whether the patient is being moved up the bed, sat up in the bed, being assisted from sitting to standing or being assisted to change from one seated position to another – and regardless of whether the handler is facing or behind the patient, or whether there is more than one handler.

*The Orthodox Lift* – A two-person lift in which the handlers place one arm around the patient’s back and the other under the patient’s thighs. The handlers may clasp each other’s wrist, or they may hold the far side of the patient. Handling slings are sometimes used. In all cases these lifts are dangerous.

*Two Sling Lift* – With the slings placed under the patient’s lower back and thighs, and the handlers standing either side of the patient with one know on the bed; this is a total body lift.

*The Shoulder Lift* – Also known as the *Australian Lift*, regardless of whether the ‘free’ arm is placed on the bed for ‘support’ or places around the patient.

*Front transfer with one nurse* – This includes the pivot transfer, the elbow lift, and the ‘bear hug’, regardless of whether a belt or sling is used. You must not lift people in this way because; they weigh too much and are unpredictable, it is difficult for staff to get into a safe position, and staff are at rick of injury. These lifts include a rick injuring the patient. Manual handing lifts are not therapeutic, they do not improve the patient’s mobility.

Act and Regulations Relating to Manual Handling

* Health and Safety at Work Act 1974 (HSWA) (HSW)

This Act of Parliament is the main piece of UK health and safety legislation. It places a duty on all employers to “to ensure, so far as is reasonably practicable, the health, safety and welfare at work” of all employees.

* Manual Handling Operations Regulations 1992 (MHOR) (as amended 2002)

The regulations define manual handling as “…any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying, or moving thereof) by hand or bodily force”. The load can be an object, person, or animal.

* Management of Health and Safety at Work Regulations 1999

This act outlines what employers are required to do to manage health and safety under the Health and Safety Work Act. The regulations apply to every work activity.

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

The regulations deal with the work equipment and machinery used every day in workplaces and aims to keep people safe wherever equipment and machinery is used at work.

* Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)

In most cases, lifting equipment is also work equipment so the Provisions and Use of Work Equipment Regulations (PUWER) will also apple (including inspection and maintenance).

Employers Responsibilities Regarding Manual Handling

Your employer’s duties are set out in the Manual Handling Operations Regulations 1992 (amended). These regulations require your employer to apply control measures to prevent or reduce the risk of injury to you from manual handling of loads.

The regulations set out a three-step approach your employer should take:

* Step 1 – Avoid the need for any manual handling involving risk of injury, “so far as reasonably practicable”. This may include mechanisation, redesigning the tasks you do, or breaking down the loads you handle into manageable units.
* Step 2 – Where manual handing tasks cannot be avoided, assess the risks. In these circumstances, employers must review the risk factors associated with the manual handling you do. This includes: Yours tasks; The load that you lifts or carry, such as the amount of space you work in, how it is organised, how much you have to twist and lift and; Your individual capabilities.
* Step 3 – Reduce the risk of injury. After the risk assessment, your employer should introduce safe systems to minimise risks that you might face. The regulations do not specify a maximum weight to be lifted, but employers must take steps to reduce manual handling to its lowest practicable level. They must provide you with information on the weight of each load, and the heaviest side of any load.

Employees Responsibilities Regarding Manual Handling

It is all too easy to think that responsibility for manual handling safety rest solely upon management and that it is up to the employer to prevent harm from coming to workers.

Whilst it is true that employers do have responsibilities regarding manual handling and the health and safety of their workers, the employees themselves must also do their part.

It is the responsibility of employee to use any equipment that has been provided by management to assist with the prevention of manual handling injuries from occurring.

Not only should they use it, they should do so in accordance with the training that should have been provided to them in its correct use and operation.

A failure to use equipment correctly will not only reduces or eliminate its effectiveness at preventing injuries but may even pose a danger to health and safety in its own right. For example a mechanical aid that is used to prevent manual handling conditions such as a pulled muscle can in fact cause a more serious injury or even death if it is used incorrectly, such as a head trauma or crush injury.

Although it is an employer’s duty to carry out suitable risk assessments and put into place provisions for safeguarding the health, safety and wellbeing of their workers, employees do have some responsibilities also. For a start, they need to perform manual handling tasks and use assistance equipment in accordance with the training, instruction, and guidelines that they should have received. Employees should also notify and inform their employer of shortcoming or deficiencies in the organisation’s health and safety procedures or equipment.