



## **Manual Handling**

### **Introduction**

This guidance addresses the following:-

- Consideration of measures to avoid, as far as is reasonably practical, manual handling operations
- Making suitable and sufficient assessments of manual handling operations that cannot be avoided taking account of the task, load, working environment and individual capabilities;
- Reducing the risk of injury to any person to the lowest level reasonably practicable;
- Consulting, informing and training employees involved in manual handling operations.

### **Definitions**

The definitions of certain terms are contained in the Regulations and determine application of the Manual Handling Operations Regulations 1992.

#### **Injury**

The term "injury" applies to injuries to any part of the body (not just the back) caused by external properties of a load such as its weight, shape, size, rigidity (or lack of it) or from the movements of its contents.

#### **Load**

A "load" is classified as a discrete movable object and includes, for example, humans and animals. It does not include an implement, tool or machine which is in use for its intended purpose.

#### **Manual Handling Operations**

This involves any human effort by hand or bodily force to transport or support a load (includes lifting, putting down, pushing, pulling, carrying or moving). It includes direct and indirect physical effort, for example, lifting a load using arms and back muscles (direct) or pulling on a chain whilst using a hoist to lift a load (indirect), intentional dropping of a load and throwing of a load whether into a receptacle or from one person to another.

### **Possible Effects on Health**

#### **Health Effects**

Manual handling accidents account for over a third of all over 3-day reportable accidents reported to the enforcing authorities. It has been a common misconception that manual handling problems are directly associated with heavy industry but, in fact, all sections are affected.

There are a large variety of injuries that can result from moving and handling, from cuts and bruises through to musculo-skeletal disorders (MSDs) such as strains, sprains and slipped disks etc.

Many of these health problems are caused by poor posture and excessive repetitive movements, often caused over a period of time rather than by a single manual handling operation.

#### **The Main Risks**

An employee may be at risk of injury through manual handling operations if they:-

- Are physically unsuited for the task;
- Are wearing unsuitable clothing, footwear etc;
- Have not received adequate and suitable instruction and training to enable them to carry out the task safely;
- Have had a previous or have an existing injury.

NB Consideration should be given to employees who are known to be pregnant. Medical studies have shown that hormonal changes can affect the ligaments increasing the likelihood of injury. Postural problems may intensify as the pregnancy progresses. Managers shall ensure that no pregnant employees are put at risk by any manual handling activity.

## **Duties of Employers**

The employer is the Trustees of Bradwell Pre School. On their behalf within schools each supervisor shall have responsibility to ensure that arrangements are made to implement the following:-

- Avoid manual handling which involves risk of injury wherever it is reasonably practicable;
- Carry out assessments for all manual handling operations;
- Record all relevant assessments (using the questionnaire at Appendix 2);
- Review assessments as required;
- Provide adequate information, instruction and training to employees.

## **Avoidance of Manual Handling**

The Regulations state that any manual handling operations which involve a risk of injury should, so far as is reasonably practicable, be avoided.

There are two practical ways to achieve this:-

Eliminate the handling operation;  
Automate or mechanize the operation.

### **Eliminate the Handling Operation**

If a risk to health, arising from manual handling, has been highlighted consideration should be given to the elimination of that operation.

For example, does a physically impaired child need to be moved for meals or can the meals be taken to that child?

This is the most effective method to prevent manual handling injuries but in some circumstances it is impossible to implement if the operation is necessary. If this is the case, automation or mechanisation of the task should be considered.

### **Automate or Mechanise the Operation**

The elimination or automation/mechanisation of manual handling operations should effectively reduce injuries and ensure a safer working environment.

These methods are effective but consideration should also be given to further risks which the equipment may create.

For instance, any mechanical or automated equipment will require installation, maintenance and repair, all of which have their own associated hazards.

Staff will require training in how to use the mechanical or automated equipment correctly and safely.

## **Assessment**

Where it is not possible to eliminate the need for manual handling an assessment should be carried out. These assessments should be carried out by a 'competent' assessor who has a thorough practical understanding of the types of tasks to be performed, the loads involved and the working environment in which the manual handling operation is to be carried out. The initial assessment should involve the use of the numerical guidelines below. These will indicate if a more complex assessment is required. The assessment should be in written form communicated to those at risk and kept readily accessible for everybody for the period for which it is in force.

## Numerical Guidelines

This section is reproduced from the Health and Safety Executive Publication 'Getting to Grips with Manual Handling: A Short Guide' 2003/04

### How do I Know if There's a Risk of Injury?

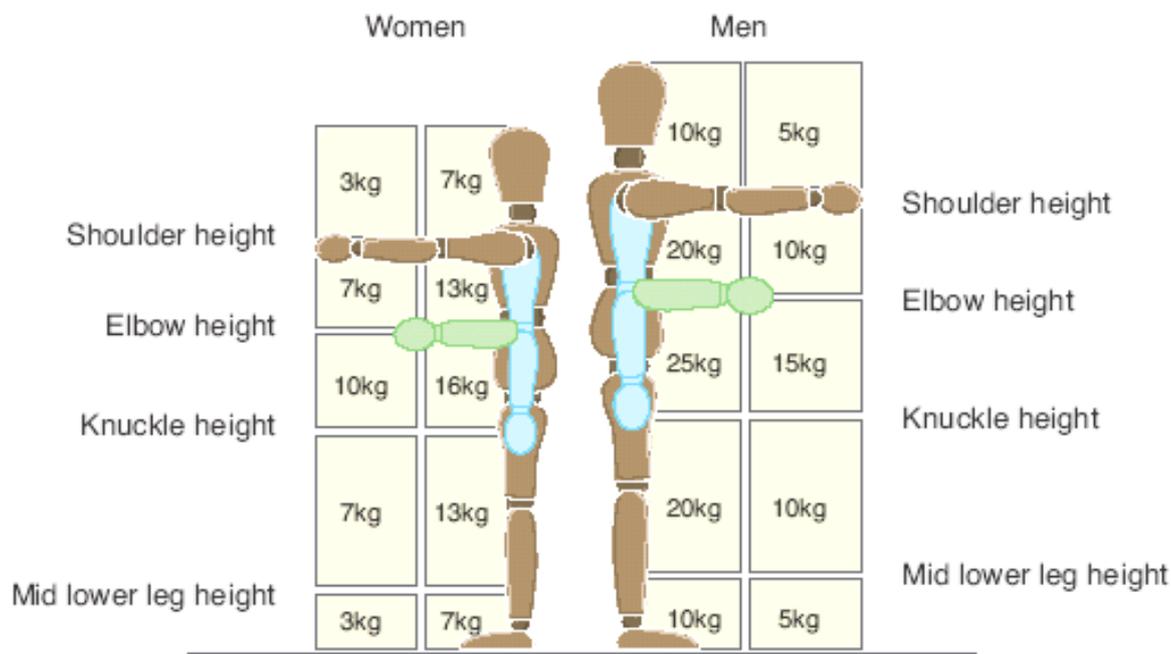
It's a matter of judgement in each case, but there are certain things to look out for, such as people puffing and sweating, excessive fatigue, bad posture, cramped work areas, awkward or heavy loads or a history of back trouble. Operators can often highlight which activities are unpopular, difficult or hard work.

### Can you be more definite?

It is difficult to be precise - so many factors vary between jobs, workplaces and people. But the general risk assessment guidelines in the next section should help to identify when a more detailed risk assessment is necessary.

### General Risk Assessment Guidelines

There is no such thing as a completely 'safe' manual handling operation. But working within the following guidelines will cut the risk and reduce the need for a more detailed assessment.



**Figure 2** Lifting and lowering

- Use Figure 2 to make a quick and easy assessment. Each box contains a guideline weight for lifting and lowering in that zone. (As you can see, the guideline weights are reduced if handling is done with arms extended, or at high or low levels, as that is where injuries are most likely to occur.)
- Observe the work activity you are assessing and compare it to the diagram. First, decide which box or boxes the lifter's hands pass through when moving the load. Then, assess the maximum weight being handled. If it is less than the figure given in the box, the operation is within the guidelines.
- If the lifter's hands enter more than one box during the operation, use the smallest weight. Use an in-between weight if the hands are close to a boundary between boxes.
- The guideline weights assume that the load is readily grasped with both hands and that the operation takes place in reasonable working conditions, with the lifter in a stable body position.

## Twisting

Reduce the guideline weights if the handler twists to the side during the operation. As a rough guide, reduce them by 10% if the handler twists beyond 45°, and by 20% if the handler twists beyond 90°.

## Frequent Lifting and Lowering

The guideline weights are for infrequent operations - up to about 30 operations per hour - where the pace of work is not forced, adequate pauses to rest or use different muscles are possible, and the load is not supported by the handler for any length of time. Reduce the weights if the operation is repeated more often. As a rough guide, reduce the weights by 30% if the operation is repeated once or twice per minute, by 50% if the operation is repeated five to eight times a minute, and by 80% where the operation is repeated more than 12 times a minute.

## Pushing and Pulling

The task is within the guidelines if the following figures are not exceeded:

	<i>Men</i>	<i>Women</i>
Force to stop or start the load	20 kg	15 kg
Sustained force to keep the load in motion	10 kg	7 kg

See 'Good handling technique for pushing and pulling' for some examples of forces required to push or pull loads.

## Using the Results: Do I Need to Make a More Detailed Assessment?

Using Figure 2 is a first step. If it shows the manual handling is within the guideline figures (bearing in mind the reduced limits for twisting and for frequent lifts) you need not do any more in most cases. But you will need to make a more detailed assessment if:

- the conditions given for using the guidelines (e.g. that the load can be readily grasped with both hands) are not met;
- the person doing the lifting has reduced capacity, e.g. through ill health or pregnancy;
- the handling operation must take place with the hands beyond the boxes in the diagram; or
- the guideline figures in the diagram are exceeded.

For pushing and pulling, you should make a more detailed assessment if:

- there are extra risk factors like uneven floors or confined spaces;
- the worker can't push or pull the load with their hands between knuckle and shoulder height;
- the load has to be moved for more than about 20 m without a break; or
- the guideline figures in the table are likely to be exceeded.

HSE has also developed a tool called the Manual Handling Assessment Chart (MAC), to help you assess the most common risk factors in lifting, carrying and team handling. You may find the MAC useful to help identify high-risk manual handling operations and to help complete detailed risk assessments. It can be downloaded from [www.hse.gov.uk/msd](http://www.hse.gov.uk/msd).

## Are You Saying I Mustn't Exceed the Guidelines?

No. The risk assessment guidelines are not 'safe limits' for lifting. But work outside the guidelines is likely to increase the risk of injury, so you should examine it closely for possible improvements. You should remember that you must make the work less demanding if it is reasonably practicable to do so.

Your main duty is to avoid lifting operations that involve a risk of injury. Where it is not practicable to do this you should assess each lifting operation and reduce the risk of injury to the lowest level reasonably practicable. As the risk of injury goes up you must look at the operation increasingly closely to make sure it has been properly assessed and the risk of injury has been reduced.

An assessment does not need to be recorded for the following:-

- If it could be easily repeated and explained due to its obvious and simplistic nature;
- The manual handling operation is straightforward and of low risk, will be of very short duration and the time taken to record it would be disproportionate.

In some circumstances it will be unrealistic to assess every single instance of manual handling. In these situations a 'generic' assessment should be carried out which incorporates the range of risks involved.

The assessment should be based upon four factors:-

- Task;
- Load;
- Working environment;
- Individual capability.

Each factor will now be considered individually. (The following should be read in conjunction with the numerical guidelines above.)

### Task

When a load is moved away from the trunk the stress levels in the lower back region increase. Counterbalance is also seriously affected and the capacity to handle a load may be reduced considerably.

Poor posture increases the risk of loss of control of the load which in turn may create sudden unpredictable increases in physical stresses. For instance, if feet and hands are not well placed to enable forces to be distributed evenly the risk of injury is increased.

This can also occur if the load moves suddenly such as with containers full of liquid and bags of loose material.

It is important to reduce the twisting motion of the trunk whilst carrying out a manual handling task to a minimum. As the angle of trunk twist is increased the safe handling capacity is reduced.

The safe handling capacity can be even more substantially reduced if a twisting motion is linked to one of stooping or stretching. These situations must be avoided wherever possible as they create the highest risk of injury.

An excessive movement of the load must also be avoided. This includes; lifting loads above head height, lifting from floor level or having to carry a load for long distances. The body is under excessive stresses and becomes easily fatigued.

As with lifting, lowering and carrying, pushing and pulling a load can also cause injury. With all manual handling tasks there should be suitable rest (break from work) or recovery (changing to another task which uses a different set of muscles) periods in which to counteract bodily fatigue. This is important if manual handling tasks are carried out using fixed movements as the muscles tire quickly and the blood flow to the muscles is reduced.

Consideration must be given to manual handling tasks which are carried out whilst seated. The use of leg muscles are excluded and all strain is placed upon the weaker arm and trunk muscles.

## Load

Several features of a load must be considered when assessing its manual handling suitability (because they make the task more hazardous). These include its:-

- Weight;
- Shape (bulky/unwieldy?);
- Size (does it interfere with visibility?);
- Location of its centre-of-gravity;
- Rigidity (or lack of it);
- Stability (do the contents move? eg as with liquids);
- Physical properties (is the load hot, cold, sharp edged etc)

Any one of these factors may affect the likelihood of the load to cause injury (either musculo- skeletal problems or cuts, abrasions etc as with rough or sharp loads).

In addition to these factors, the posture required to handle the load and the frequency and duration of the task must also be assessed.

## Working Environment

Some working environments prevent the adoption of good postures, for instance, where there is poor lighting, variations in working levels, insufficient space to stand upright, the floor is uneven, sloping, slippery etc. Some areas may also be influenced by extremes of temperature as with walk-in freezers or hot work areas in workshops.

## Individual Capability

The assessment must take into account the physical ability of the individual carrying out manual handling operations. This ability may be influenced by several factors such as:-

- Gender;
- Strength;
- Height;
- Age;
- Health.

There is a general rule that states that the risk of injury should be regarded as unacceptable if the manual handling task cannot be performed by most reasonably fit, healthy employees.

Particular consideration will need to be given to groups of employees who are especially at risk. This includes employees who:-

- Are or have recently been pregnant;
- Are known to have a medical problem that could affect their moving and handling capability e.g. back, hip, knee injury or hernia;
- Have previously had a manual handling injury;
- Are young workers.

As mentioned previously, care should be taken with pregnant employees who handle loads, especially during the last three months of pregnancy and for the three months following a normal delivery. The pregnant worker risk assessment carried out when the worker notifies the employer of her pregnancy should address moving and handling issues and should be reviewed regularly and used to inform any specific moving and handling assessments.

Also if an individual's state of health may affect their manual handling capability, consideration should be given to obtaining medical advice to ensure that the individual is not exposed to unnecessary risks.

The individual(s) clothing could also affect their ability to move and handle loads. Clothing should be appropriate to the task e.g. footwear should provide support and stability and clothing should not restrict movement.

Further medical advice may be obtained from the Authority's Occupational Health Unit based at County Hall, Matlock.

### **Reducing the Risk of Injury**

Some manual handling operations offer more scope for reducing the risk of injuries than others. Therefore, emphasis is placed upon the load itself and suitable training for those carrying out the manual handling task.

An ergonomic approach should be adopted to enable safe design of all manual handling techniques. Improved job and workplace design may not eliminate injuries but should greatly reduce them. The task, load, working environment and individual capabilities must be considered to design the task to suit the employee.

Emphasis should be placed on the use of mechanical aids where reasonably practicable. These still involve some degree of manual handling but the risk of injury is reduced and efficiency increased. Examples of mechanical aids include: hoists, levers, sack truck, roller conveyor and chutes etc.

The appropriate Safety Representative and employee should be involved in redesigning any work methods and encouraged to report on its effectiveness.

### **Task**

Several factors to consider are:-

#### *(a) Improving task layout*

- Using suitable storage racks for materials at waist height etc.

#### *(b) Using the body more efficiently*

- Prevent the need for stooping and twisting by re-designing layout;
- Ensure that the load can be held close to the body to reduce stresses in the back and shoulders;
- Ensure good handling posture is maintained by correct body positioning, removing obstacles and keeping the area free from debris;
- Use push/pull techniques wherever possible rather than lifting a load.

#### *(c) Improve work routine*

- Allow suitable rest/recovery periods for manual handling operations;
- Introduce job rotation where practical which allows the muscles to relax whilst others are in use.

#### *(d) Handling whilst seated*

- An employee can handle less than in a standing position therefore avoid lifting from floor height as this will put severe strain on the lower back;
- Seating should preferably have a swivel action and no casters. This ensures some freedom of movement and stability.

#### *(e) Team handling*

- Used when a load is unsafe to be handled by one person;
- The team should work well together and respond to synchronised instructions. One person should plan and take control of the operation to ensure that movements are co-ordinated.

Training is essential otherwise further hazards may develop. Many injuries are caused when one person is trained to handle loads safely and the other is not;

- Team members should preferably be similar in build to ensure even distribution of load stresses. Teams of more than four people are unlikely to be effective;
- Consideration of the layout of the workplace will be required as slopes, for example, are likely to place uneven loads on team members on the down side of the slope.

(f) *Personal protective equipment*

- Includes items such as: gloves, overalls, safety footwear etc;
- All equipment provided should be well fitting and not restrict movement;
- All equipment should be suitable for the task and kept in good condition (Personal Protective Equipment at Work Regulations 1992).

(g) *Maintenance of handling equipment*

- All equipment should be well maintained and defects reported immediately. (See the Provision and Use of Work Equipment Regulations 1992).

## **Load**

### *Size and Weight*

#### **Is the Load Heavy?**

The weight of a load is an important factor in assessing the risk from manual handling. However it is now well established that the weight of the load is only one (and sometimes not the main) consideration affecting the risk of injury. Other features of the load must also be considered as part of the assessment. These will include:-

- Resistance to movement;
- Size;
- Shape;
- Rigidity.

The circumstances in which the load is to be handled must also be taken into account, for example:-

- Postural requirements;
- Frequency and duration of handling;
- Workplace design;
- Aspects of work organisation such as incentive schemes.

Where a risk of injury from a heavy load is identified, consideration should be given to reducing its weight. For example when distributing/carrying text books for a full class, then it would be sensible to carry them in smaller numbers. When breaking down loads into smaller weights care needs to be given to not increasing the risk of injury due to increasing handling frequency.

#### **Is the Load Bulky or Unwieldy?**

The shape and size of a load will affect the way it can be held. For example, if the bottom front corners of a load are not within reach when carried at waist height it will be harder to get a good grip.

The bulk of a load could be such that it interferes with vision increasing the risk of slipping, tripping, falling or colliding with objects. It may be possible to overcome this problem by utilising a team lift where one employee's vision is not restricted. In these circumstances the load could also be difficult to control and the load may hit obstructions and it may be affected by wind or sudden air movements.

If the centre of gravity of the load is not positioned centrally within the load this may increase the risk of injury through inappropriate handling. For example, loads with much of the weight at the back should not be lifted from the front as this would place the centre of gravity further from the handler's body.

## **Making the Load Easier to Grasp**

If the load is difficult to grasp (for example if it is large, rounded, smooth, wet or greasy) its handling will call for extra grip strength, which is tiring and will probably call for inadvertent changes in posture. Handling will be less easy and the risk of injury will be increased.

For awkward loads like this, consider providing handles, hand grips, indents or other features designed to improve the handler's grasp. Alternatively it may be possible to place the load securely in a container which is easier to grasp.

Any features such as hand holds designed to make the load easier to grip must be appropriately placed and of the correct size.

## **Making the Load More Stable**

Loads which are unstable or lack rigidity could move unexpectedly and impose stresses for which the handler is not prepared. This can lead to injury. This can be made even worse when the handler is unaware that the load is unstable.

Where possible loads should be packed in such a way to prevent the load shifting unexpectedly. Containers containing liquids or free moving powders should be well filled leaving only a small amount of free space. You must however ensure that this does not increase the risk by increasing the weight significantly.

For non-rigid loads you may consider using handling aids such as slings.

## **Avoiding Injuries from Contact with the Load**

There may also be a risk of injury from contact with the load. This may be because it has sharp edges or corners, rough surfaces or it may have surfaces which are hot or cold enough to cause injury. As well as the obvious risk of contact injury such things can impair grip and discourage good posture leading to other injuries.

Loads should be kept clean and free of corrosive deposits, oils etc. Insulated containers may be appropriate for hot or cold loads. PPE and/or handling aids may be appropriate for loads with sharp edges etc as mentioned above.

## **Working Environment**

Ensure adequate space in which to carry out manual handling operations. This includes all handling operations and consideration will need to be given to narrow doorways or gangways that encourage bad posture. There should be adequate headroom and avoidance of low work surfaces both of which would encourage stooping. Routes should be kept clear of obstructions and any doors to be passed through should be held open. If uncertain of route/distance/obstruction etc – walk the route prior to moving load.

## **Floor Condition**

Ensure that it is level, in good condition, has a non-slip surface and is free from dirt, oil etc. any spillages of water, oil, food scraps or other items likely to make the floor slippery should be cleaned up immediately.

## **Working at Different Levels**

Wherever possible tasks should be carried out on one level. Where this is not possible the transition should be as gentle as possible with good ramps or stairs. Work benches should be at the same height to prevent the need for lowering or raising loads. Manual handling on steep slopes should be avoided as far as possible. When pushing or pulling loads on slopes, pushing is preferable to pulling and the load must not be too steep so that control of the load is difficult.

## **Thermal Environment and Ventilation**

Extremes of temperature and humidity should be avoided wherever possible. Work at high temperatures or humidity can lead to fatigue and perspiration which can affect grip. Work in cold temperatures can reduce dexterity. Gloves and protective clothing can also reduce dexterity and this needs to be considered. The influence of wind chill from air movement must also be considered. Inadequate ventilation can hasten fatigue increasing the risk of injury. Sudden air movements from ventilation systems or wind can make large loads difficult to manage safely.

## **Lighting**

This should be sufficient and well positioned to enable employees to see clearly their work surroundings

Change of lighting levels i.e. from indoors to outdoors or vice versa can also create a problem by affecting concentration or ability to see obstructions.

## **Individual Capability**

### **Personal Capacity**

Employees who are or who have been recently pregnant and those who have health problems which affect their handling capability should receive particular consideration.

However, the factors discussed earlier highlight the individual characteristics which must be taken into account.

The degree of fitness and familiarity of a task should help reduce the likelihood of handling injuries, as does a suitable level of training.

### **Knowledge and Training**

The risk of injury from a manual handling task where workers do not have the necessary training and information to enable them to work safely is greatly increased. However, knowledge and training alone do not ensure safety handling techniques.

The main objective should be to redesign the working conditions, improve the task, load and working environment as appropriate.

The task must be suited to the individual to reduce the risk of injury.

Training does, however, ensure that all employees know how to judge load suitability and use correct handling techniques.

(See Information, Instruction and Training section)

### **Review of Assessments**

The assessments should be kept up-to-date and reviewed by the departmental or school assessor when they are no longer valid, (for example, when the working conditions or personnel change). The assessment should be modified or corrected where necessary.

### **Information, Instruction and Training**

Training enables employees to develop good handling techniques and to develop skills which will help them recognise and either avoid or modify any hazardous handling situations.

## **Information**

Wherever possible all loads should be clearly marked with their weight. Where this is not possible employees should be given details of the loads to be handled with general indications on the weights.

In addition, if a load has a centre of gravity which is not located centrally, the heaviest side should be marked.

Information should also include if a load has sharp edges, is hot or cold and what the load contains if the contents may be hazardous to health or may be unstable.

All employees involved in the moving and handling operation should be made fully aware of the findings of the moving and handling assessment and the control measures that will be needed.

## **Instruction and Training**

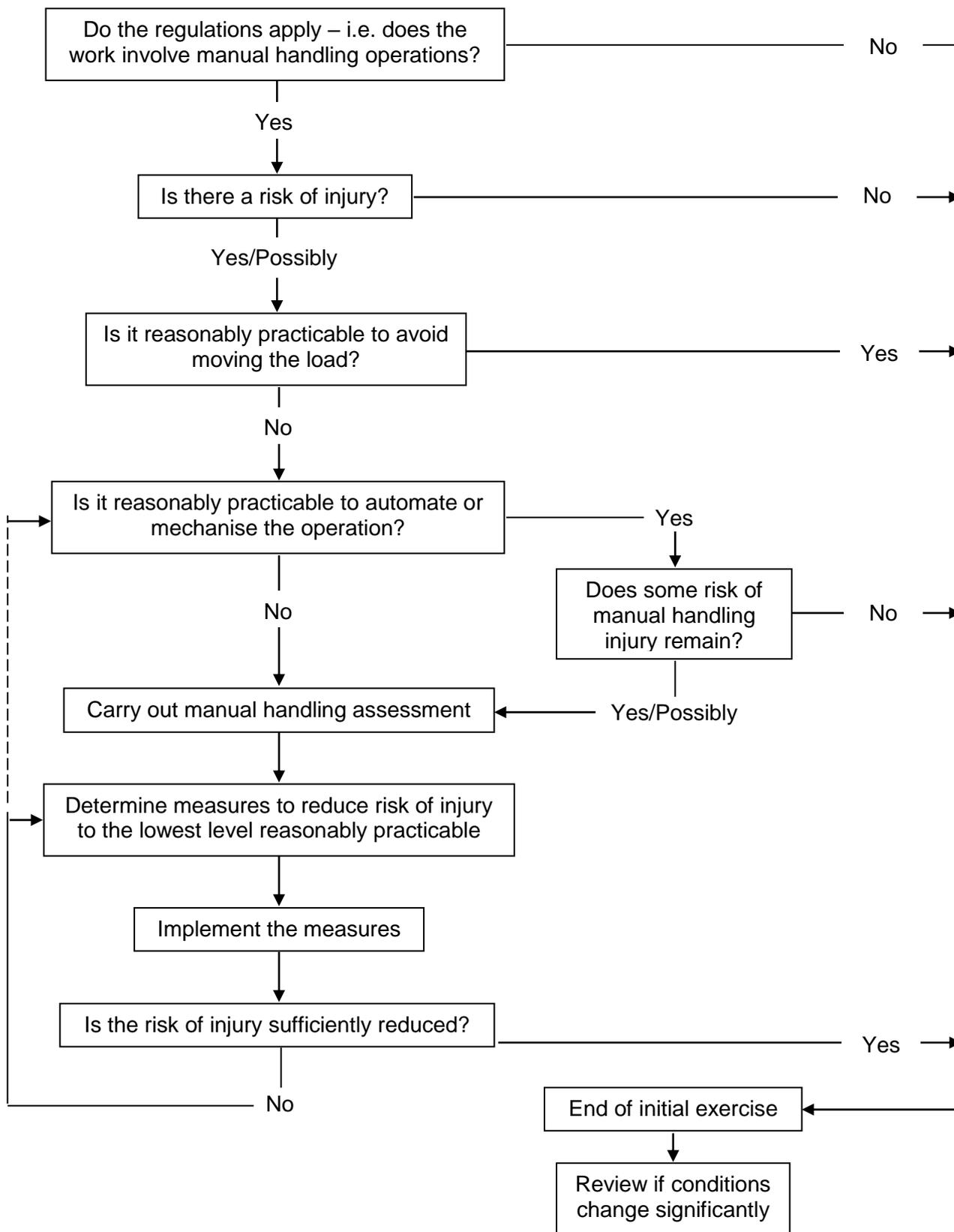
The instruction and training needs will be highlighted by the assessment and deficiencies should be rectified in order to comply with Section 2(2) of the Health and Safety at Work etc Act 1974.

The training should include practical instruction based upon the tasks of those employees concerned to emphasise the various techniques developed to reduce manual handling injuries.

This may involve the technique of judging the weight of a load by lifting one corner. Some loads are misleading; a large box may be empty and light to carry, a small box containing a portable television will be fairly heavy with a centre of gravity not centrally located.

### Manual Handling Flow Chart

How to follow the manual Handling Operations Regulations



## Appendix 1

### Assessment of Manual Handling Operation

Department:

Premises/workplace:

Details of Manual Handling Operation:

Is the Employee (or Employees) at risk of injury from the operation?

**If NOT, no further action required on this form. Re-assessment will be necessary if there is any significant change in the operation.**

**If YES**, continue with assessment:

Is it reasonably practicable to avoid the need for Manual Handling?

**If YES, and the operation ceases, no further action required on this form.**

**If NO**, continue with assessment.

Is it reasonably practicable to automate or mechanise the operation?

**If YES, and alternatives are introduced with NO FURTHER RISK OF INJURY. No further action required on this form.**

**If NO**, or there is still a risk of injury after automation or mechanisation, continue with assessment.

**1 Does the task involve:**

Yes/No

a holding a load at a distance from the trunk?

b twisting the trunk?

c stooping?

d excessive lifting or lowering distance of loads?

e excessive carrying distance of loads?

f excessive pushing or pulling distances of load?

g risk of sudden movement of loads?

h frequent or prolonged physical effort?

i insufficient rest or recovery periods?

**2 Is the load:**

a heavy?

b bulky or unwieldy?

c difficult to grasp?

d unstable, or with contents likely to shift?

e sharp and liable to cut, abrade or penetrate?

f hot and liable to burn, scald or make handling difficult?

g likely to injure in any other way?

h Filled with contents that are hazardous substances?

i labelled to indicate any of the above?

**3 In the working environment, are there any:**

a space constraints preventing good handling posture?

b uneven or damaged floors

c slippery floors or floors liable to become slippery?

d unstable floors?

e variations in level of floors (steps/ramps etc)?

f variations in level of work surfaces?

g unguarded edges, openings etc?

h extremes of temperature?

i extremes of humidity?

j extremes of air movement?

k poor/inadequately lit areas?

l variations in lighting levels?

**4 Does the task:**

a require unusual strength?

b require unusual height?

- c require unusual reach?
- d create a hazard to pregnant employees?
- e create a hazard to employees with a health or physical problem?
- f require special knowledge or training for its safe performance?

**IF YES IS ANSWERED TO ANY OF THESE QUESTIONS, STEPS MUST BE TAKEN TO REDUCE THE RISK OF INJURY TO THE LOWEST LEVEL REASONABLY PRACTICABLE.**

**EACH IS TO BE CONSIDERED CAREFULLY AND ALL REASONABLE PRACTICABLE STEPS TAKEN TO ELIMINATE OR REDUCE THE RISK.**

Is any protective clothing or equipment necessary?

**If YES**, define the clothing and equipment required and provided, and details of any information or training given to ensure its proper use.

Have employees been instructed to make full and proper use of any equipment or system of work provided?

and have they been trained in the use? (keep records of training)

Have employees been given **precise** information on:

- the weight of each load?
- the heaviest side of any load whose centre of gravity is not positioned centrally?
- any other potential hazards e.g. sharp edges, hazardous contents, flimsy packaging

**(If it is not reasonably practical be to give precise information, employees must be given a general indicating of the weights or heaviest side or any associated hazards.)**

Where applicable, enter the question number below and give details of equipment or systems to be used to reduce or eliminate the risk

(Attach separate sheet(s) if required)

Assessment carried out by:

Signature:

Date carried out:

Names of persons assistant with assessment:





Note:

This assessment must be brought to the attention of all employees involved and must be reviewed and updated if:-

- there is a reason to suspect that the assessment is no longer valid (e.g. personnel or working conditions have changed); or
- there has been a significant change in the manual handling operation to which the assessment relates (e.g. change in nature of task or nature or load etc).

## Appendix 2

### Lifting and Handling Aide-Mémoire

Lifting and handling of objects safely requires the skilful use of the right body muscles.

Before you lift, examine the object for size, weight and shape. If you have any doubts about lifting it on your own, get help. Check the object for grease, oil or sharp edges. Be extra careful of awkward shapes and difficult situations. Ensure the path you are to take is clear of obstructions and tripping hazards. Know where and how you will put the object down.

There are six key factors to remember and apply if one is to avoid unnecessary strain and injury.

- **Correct Stance**

Stand close to the object, with feet spread apart at approximately hip breadth, one foot slightly in advance of the other, and facing in the direction of travel.

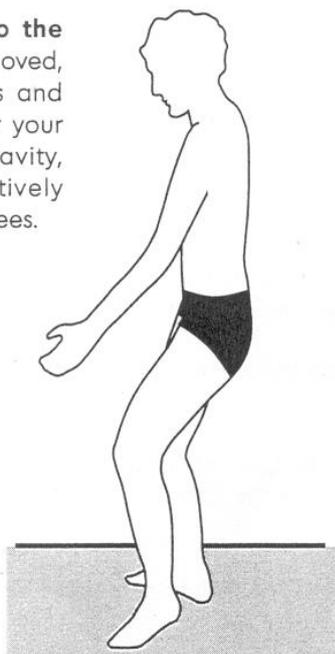
- **Squat Down**  
Straddle the load somewhat, keeping the back straight and bend your knees.
- **Correct Hold**  
Hold the object firmly. You should use the full length of the fingers and palm of the hands. Where necessary, use protective gloves/equipment.
- **Ready to Lift**  
Tuck the chin in and keep your arms straight and close to the body.
- **Lift**  
Keep the back straight, slowly straighten your legs and stand up. This way you use the strong leg and thigh muscles to do the lifting. Lead the lift with the head first.
- **Carrying**  
Hold the object firmly and close to the body.

NB THIS IS NOT A SUBSTITUTE FOR CORRECT TRAINING AND SHOULD ONLY BE USED AS AN AIDE-MÉMOIRE TO ENHANCE TRAINING ALREADY GIVEN.

### Appendix 3

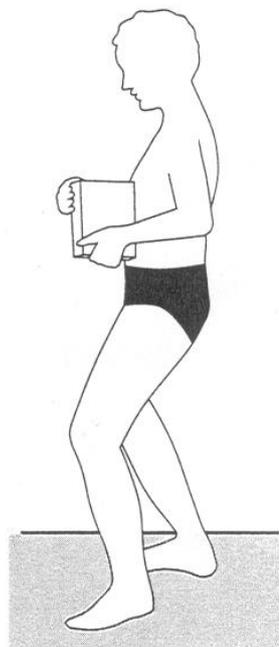
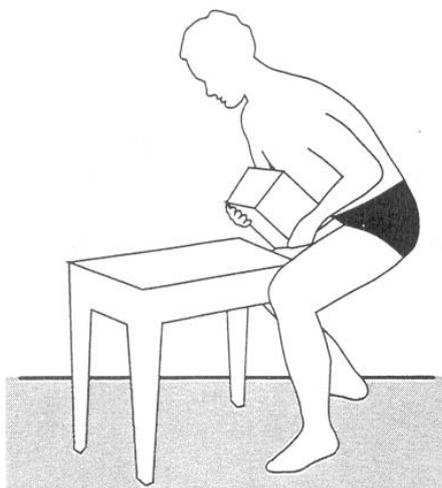
#### Lifting Movement Pattern

1. **Stand close to the object** to be moved, relax your hips and knees to lower your centre of gravity, avoid actively bending the knees.



2. **Broaden your base** by moving one of your feet out in the direction of movement.

3. **Allow your back to relax** and get close to the object to be moved, take hold near to the base of the load and use the flat of the hand.



4. **Lead the movement upwards** with the head leading, avoid twisting keep the load close when moving.