

# Manual Handling

The incorrect handling of loads causes large numbers of injuries and can result in pain, time off work and sometimes permanent disablement. More than a third of all reportable injuries arise from manual handling.

The Manual Handling Operations Regulations 1992 (as amended) apply to any manual handling operations which may cause injury at work. Those operations will be identified by the risk assessment carried out under the MHSW Regs. They will include not only the lifting of loads, but also lowering, pushing, pulling, carrying or moving them, whether by hand or other bodily force. Manual handling also includes both transporting a load and supporting a load in a static posture.

## Key steps

Employers have to take three key steps:

- avoid the need for hazardous manual handling, where reasonably practicable. Consider whether the load must be moved at all. And if it must, whether it can be moved mechanically, for example, by fork-lift truck;
- assess the risk of injury from any hazardous manual handling that cannot be avoided. An ergonomic assessment should look at more than just the weight of the load.
- reduce the risk of injury from hazardous manual handling as far as reasonably practicable. A good assessment will not only show whether there is a problem but will also point to where the problem lies. That is the starting point for improvements. For example, if the load is bulky or heavy it may be possible to use mechanical handling aids or break down the load. If handlers have to adopt an awkward posture it may be possible to rearrange the task. Additional training may also be required.

## Assessing tasks

The assessment is the employers responsibility. The regulations set out two levels of assessment. The first is to assess the risk of injury from a manual handling operation. The second assesses those manual handling operations that cannot be avoided. In practice though these two aspects will form part of one assessment on manual handling operations.

In order to assess those manual handling operations which present a risk employers will need to consider whether :-

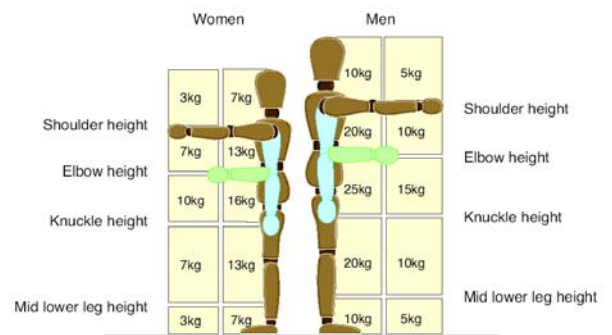
- the task can be avoided
- the task/operation can be automated or mechanised
- the system of work can be altered.

Where manual handling tasks cannot be avoided or automated a more detailed assessment should be carried out. An example of an assessment checklist based on the schedule to the regulations is set out at the end of this section.

The assessments should take into account the task, the load, the working environment and individual capability (if a person

is pregnant or suffers a complaint which would be aggravated by the manual handling task for example). Many employers will inevitably concentrate on the weights of loads as part of the assessment. Set out below are the numerical guidelines included in the regulations. It is important to note that these weight limits are by no means precise recommendations and are based on ideal working conditions and the average fit male. Safety reps should ensure employers reduce the weight according to the manual task.

## Numerical guidelines



Each box in the diagram shows guideline weights for lifting and lowering. The weights assume that the load is readily grasped with both hands; and the operation takes place in reasonable conditions with the lifter in a stable position. If the lifter's hands enter more than one box during the operation, the smallest weight should be used. An in-between weight applies if the hands are close to a boundary between boxes. If the operation must take place with the hands beyond the boxes a more detailed assessment must be made.

## More risks, lower guidelines

The guideline weights must be reduced if the lifter twists to the side during the operation. As a rough guide by 10% if the handler twists through 45°, and by 20% if the handler twists through 90°.

The guideline weights are for infrequent operations up to about 30 operations per hour. Where the pace of work is not forced or the load is not supported for any length of time there should be adequate pauses to rest or use different muscles. The weights must be reduced 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% where the operation is repeated five to eight times per minute;

and by 80% where the operation is repeated more than twelve times per minute.

For the working population the guideline weights will give reasonable protection to nearly all men and all women, if the appropriate diagrams are used..

Any operation involving more than twice the guideline weights should be rigorously assessed - even for very fit well trained individuals working under favourable conditions.

An employer will have to demonstrate that the assessment is suitable and sufficient by showing they have examined the totality of the manual handling operation. The assessment should identify the problems likely to arise during the kind of operations that can be foreseen and the measures necessary to deal with them. For example, those tasks which may cause an upper limb disorder should be identified when carrying out the assessment.

The employer should also consult industry guidance such as that produced by PIAC and PABIAC for information on the kind of control measures that can be taken.

### **Who Carries Out the Assessment?**

Assessments should be carried out by an assessment team having knowledge and experience of:-

- a) the requirements of the Regulations
- b) the nature of the handling operations
- c) a basic understanding of human capabilities
- d) identification of high risk activities; and
- e) practical steps to reduce risk.

It is vital that the safety rep is part of the assessment team and that those involved in the manual handling task are also properly consulted. Outside assistance such as that of an ergonomist should be brought in where the manual handling risks are either complicated or difficult to assess.

### **Monitor and Review**

It is important that the measures introduced to reduce risks are effective and do not present any other risks. For example, where job rotation is introduced the other task should not involve working with the same muscles.

The assessment should be reviewed when new information comes to light, such as the publication of HSE guidance or when there has been a change in the manual handling operation. In particular the assessment should be reviewed when a repetitive strain injury occurs.

### **Employers' Duty to Provide Information**

Where a manual handling operation cannot be avoided, the employer must provide precise information on the weight of the load and the heaviest side of any load whose centre of gravity is not positioned centrally.

Information on the nature and risk of a manual handling injury must also be given by the employer, and a safe system of work established.

### **Action Points**

1. Ensure that the employer carries out a risk assessment of all manual handling tasks.
2. Ensure you are involved in the risk assessment, to make sure that all aspects of the manual handling task are assessed and not just the person.
3. Use your right to be consulted on the introduction of any new measures introduced to reduce the risk of injury, to ensure that it does not present any further risks. The job must be altered to suit the person and not the other way round.
4. Monitor the employer's procedures for resolving manual handling problems, paying particular attention to any changes in work processes or work activities which could affect the original assessment.
5. Make sure that you are given copies of the assessment and request copies of industry guidance from your employer.
6. Ensure that information on the load is provided to workers, and that they are aware of the risks of their job.

# ASSESSMENT CHECKLIST

Questions to consider	Risk		Remedial action
	Yes	No	
<p><b>The tasks</b> - do they involve:</p> <ul style="list-style-type: none"> <li>holding loads away from trunk?</li> <li>twisting</li> <li>stooping?</li> <li>reaching upwards?</li> <li>large vertical movement?</li> <li>long carrying distances?</li> <li>strenuous pushing or pulling?</li> <li>unpredictable movement of loads?</li> <li>repetitive handling?</li> <li>insufficient rest or recovery?</li> <li>a work rate imposed by a process?</li> </ul>			
<p><b>The loads</b> - are they:</p> <ul style="list-style-type: none"> <li>heavy?</li> <li>bulky/unwieldy?</li> <li>difficult to grasp?</li> <li>unstable/unpredictable?</li> <li>intrinsically harmful</li> <li>e.g. sharp/hot?)</li> </ul>			
<p><b>The working environment</b> - are there:</p> <ul style="list-style-type: none"> <li>constraints on posture?</li> <li>poor floors?</li> <li>variations in levels?</li> <li>hot/cold/humid conditions?</li> <li>strong air movements?</li> <li>poor lighting conditions?</li> <li>Restrictions on movement or posture from clothes or personal protective equipment?</li> </ul>			
<p><b>Individual capability</b> - does the job:</p> <ul style="list-style-type: none"> <li>require unusual capability?</li> <li>Endanger those with a health problem?</li> <li>endanger pregnant women?</li> <li>call for special information/training?</li> </ul>			

Source: Manual Handling Guidance on Regulations (L)23