

Manual Handling

Manual handling injuries account for over a third of all accidents reported to the enforcing authorities each year.

Under the Manual Handling Operations Regulations 1992 (as amended) the employer has legal duties to:

- avoid the need to carry out manual handling operations wherever possible;
- if manual handling cannot be avoided the task should be automated or mechanised in some way, in order to reduce the amount of manual handling required;
- if manual handling cannot be avoided, an employer must assess the risks involved with the operations and take steps to avoid them.

This assessment is necessary to ensure that employees do not suffer injuries from manual handling tasks and it is important to note that there is no maximum weight given for manual handling tasks.

Most of the assessments can be done in house and will just require a few minutes' observation to identify ways to make the activity less hazardous, i.e. less physically demanding.

When making these observations employees should be consulted, as more often than not they are aware of what the problems are and the easiest ways of avoiding them. The overall responsibility for suitable assessments remains with the employer.

A general assessment of risk, as required by Regulation 3(1) of the Management Regulations may indicate the possibility of injury from manual handling operations; in this case a more specific assessment should be carried out. How detailed this further assessment needs to be will depend on the circumstances. In general, the significant findings of the assessment should be recorded and the record kept, readily accessible, as long as it remains relevant.

Assessments need not be recorded if:

- it could be easily repeated and explained at any time because it is simple and obvious
- the manual handling operations are of low risk, only going to last a very short time and the time taken to record the assessment would be disproportionate.

When making a more detailed assessment the following categories should be considered:

The **TASK**

The **INDIVIDUAL CAPABILITY**

The **LOAD**

The working **ENVIRONMENT**

(These can be easily remembered by the acronym TILE)

A simple checklist to assist with the detailed assessment is attached at the end of this guidance note.

Example forms (A preliminary assessment & B Detailed assessment) are also available in Guidance Note Manual Handling, subtopic - Manual Handling Assessment Form in the document library.

Risk Assessment Filter

There is no such thing as a totally risk free manual handling operation. The Health and Safety Executive have produced a risk assessment filter which states that remaining within the guidelines may remove the need for a detailed risk assessment.

The guideline figures given below should not be regarded as “safe” weight limits for lifting, as there is no threshold below which manual handling operations may be regarded as ‘safe’. Working within the boundaries of the filter should provide a reasonable level of protection.

LIFTING AND LOWERING

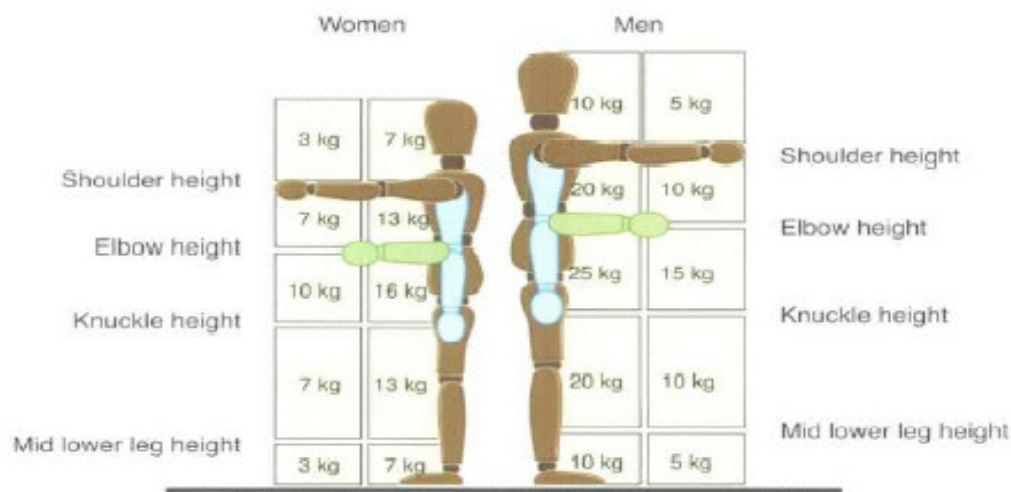


Figure 23 Lifting and lowering

Each box in the diagram contains a guideline weight for lifting and lowering in that zone. 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.

Observe the work activity being assessed 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, then the smallest weight figure applies. An intermediate weight can be chosen if the hands are close to a boundary between boxes.

The guideline figures for lifting and lowering assume:

- (a) the load is easy to grasp with both hands;
- (b) the operation takes place in reasonable working conditions; and
- (c) the handler is in a stable body position.

If these assumptions are not valid, it will be necessary to make a full assessment.

Frequent lifting and lowering

The basic guideline figures for lifting and lowering in the diagram on the previous page are for relatively infrequent operations - up to approximately 30 operations per hour or one lift every two minutes. The guideline figures will have to be reduced if the operation is repeated more often.

As a rough guide:

- Operations carried out once or twice a minute should have the weight reduced by 30%
- Operations carried out five or eight a minute should have the weight reduced by 50%
- Operations carried out more than twelve times a minute should have the weight reduced by 80%

Twisting

In many cases manual handling operations will involve some twisting, i.e. moving the upper body while keeping the feet static. The combination of twisting and lifting and twisting, stooping and lifting are particularly stressful on the back. Where the handling involves twisting and turning then a detailed assessment should normally be made.

However if the operation is:

- (a) relatively infrequent (up to approximately 30 operations per hour or one lift every two minutes);
- and
- (b) there are no other posture problems;

then the guideline figures in the relevant part of this filter can be used, but with a suitable reduction according to the amount the handler twists to the side during the operation. As a rough guide:

Twisting beyond 45° reduce the weight by 10%

Twisting beyond 90° reduce the weight by 20%

Carrying

The guideline figures for lifting and lowering apply to carrying operations where the load is:

- (a) held against the body;
- (b) carried no further than about 10 m without resting.

A more detailed assessment should be made for all carrying operations if the load is carried over a longer distance without resting or the hands are below knuckle height or above elbow height.

Pushing and Pulling

For pushing and pulling operations (whether the load is slid, rolled or supported on wheels) the guideline figures (below) assume the force is applied with the hands, between knuckle and shoulder height. It is also assumed that the distance involved is no more than about 20 m. If these assumptions are not met, a more detailed risk assessment is required.

	Men	Women
Force required to stop or start the load	20Kg	15Kg
Sustained force to keep the load in motion	10Kg	7Kg

There is no specific limit to the distance over which the load is pushed or pulled as long as there are adequate opportunities for rest or recovery.

Reviewing the assessment

The assessment should be kept up to date. It should be reviewed if new information comes to light or if there has been a change in the manual handling operations.

The assessment may also need to be reviewed if an injury occurs, or an employee becomes more vulnerable to risk due to illness, or the onset of disability or pregnancy.

Training

An employer must also provide training regarding manual handling. This should include manual handling risk factors and how injuries occur, good handling technique, appropriate safe systems of work, use of mechanical aids.

Remember that training by itself cannot overcome:

- a lack of mechanical aids
- unsuitable loads
- poor working conditions.

Overview

- Consider avoiding the need for manual handling by re-engineering the process.
- Consider reducing the risk by minimising or reducing the load/task.
- Appoint persons who have been adequately trained for manual handling assessments, and ensure that all work activities where manual handling cannot be avoided are adequately assessed.
- Conduct manual handling assessments of work activities taking into account the task, the individual the load, and the environment – TILE!
- Provide handling aids and equipment.
- Train staff and maintain training records.
- Record the assessment and keep it up to date. Review the assessment if new information comes to light or if a change in manual handling operations occurs.

Further information on manual handling:

L23 Manual Handling. Manual Handling Operations Regulations 1992 (as amended). Guidance on Regulations.

ISBN 978 0 7176 28230 £8.95

HSG115 Manual Handling. Solutions you can handle.

ISBN 978 0 7176 06931 £7.95

INDG143 Getting to grips with manual handling. A short guide.

Free leaflet

<http://www.hse.gov.uk/pubns/indg143.pdf>

INDG383 Manual handling assessment charts.

Free leaflet

<http://www.hse.gov.uk/pubns/indg383.pdf>

INDG398 Are you making the best use of lifting and handling aids?

Free leaflet

<http://www.hse.gov.uk/pubns/indg398.pdf>

All of the publications listed above are available from:

HSE Books

Tel: 01787 881165

Fax: 01787 313995

<http://www.hsebooks.com/>

Manual Handling – TILE Checklist

When carrying out a manual handling assessment consider the following:

TASK

- Does the operation involve twisting/stretching/stooping?
- Does the operation involve pushing/pulling?
- Does the operation involve carrying the load long distances?
- Does the operation involve frequent/prolonged effort?
- Is there sufficient recovery time?

INDIVIDUAL CAPACITY

- Does the operation require someone with above average strength?
- Does the operation endanger someone with a known health problem/injury?
- Would the operation endanger a young worker?
- Would the operation endanger a pregnant worker?

LOAD

- Is the load bulky/heavy?
- Is the load unwieldy?
- Is the one side heavier than another?
- Where is the centre of gravity?

ENVIRONMENT

- Does the operation require a certain amount of space?
- Is the operation carried out on more than one floor?
- Is the surface uneven/slippery?
- Is the work carried out in a hot/humid/cold environment?
- What are the lighting conditions?

Other factors to be considered could also include whether movement or posture is hindered by personal protective equipment or by clothing.