

Manual Handling Information

This document has been developed to assist employees of Connevens Limited identify the appropriate techniques and correct approach to manual handling within an office environment.

All employees must read this document and ensure that you have fully read and understood the instruction training enclosed. Should you require additional assistance with the information enclosed please contact John Popplestone for support.

The information enclosed is to assist employees in lifting items such as:

- Reams of Paper
- Archive Boxes & parcels
- Bottled Water Units
- General Office Materials

For anything outside of this remit then the employee's line manager must undertake a detailed Manual Handling Risk Assessment in line with the Firm's Manual Handling Procedure.

This document is split into two sections

- Section 1 General information on good techniques including Safe Working Limits (SWL)
- Section 2 General pictorial information relative to the information contained in Section 1

Good handling technique for lifting

- **Think before lifting/handling.** Plan the lift. Can handling aids be used? Where is the load going to be placed? Will help be needed with the load? Remove obstructions such as discarded wrapping materials. For a long lift, consider resting the load midway on a table or bench to change grip.



Think before lifting/handling



Keep the load close to the waist

Manual Handling Information

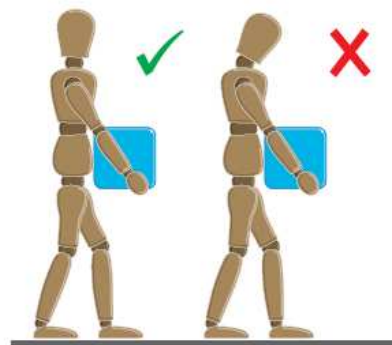


Adopt a stable position with feet apart and one leg slightly forward to maintain balance



Start in a good posture

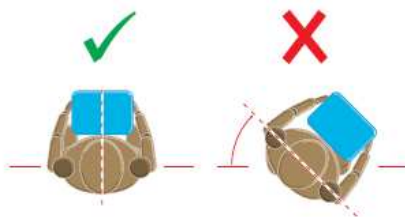
- **Keep the load close to the waist.** Keep the load close to the body for as long as possible while lifting. Keep the heaviest side of the load next to the body. If a close approach to the load is not possible, try to slide it towards the body before attempting to lift it.
- **Adopt a stable position.** The feet should be apart with one leg slightly forward to maintain balance (alongside the load, if it is on the ground). The worker should be prepared to move their feet during the lift to maintain their stability. Avoid tight clothing or unsuitable footwear, which may make this difficult.
- **Get a good hold.** Where possible the load should be hugged as close as possible to the body. This may be better than gripping it tightly with hands only.
- **Start in a good posture.** At the start of the lift, slight bending of the back, hips and knees is preferable to fully flexing the back (stooping) or fully flexing the hips and knees (squatting).
- **Don't flex the back any further while lifting.** This can happen if the legs begin to straighten before starting to raise the load.
- **Avoid twisting the back or leaning sideways,** especially while the back is bent. Shoulders should be kept level and facing in the same direction as the hips. Turning by moving the feet is better than twisting and lifting at the same time.
- **Keep the head up when handling.** Look ahead, not down at the load, once it has been held securely.
- **Move smoothly.** The load should not be jerked or snatched as this can make it harder to keep control and can increase the risk of injury.
- **Don't lift or handle more than can be easily managed.** There is a difference between what people can lift and what they can safely lift. If in doubt, seek advice or get help.
- **Put down, then adjust.** If precise positioning of the load is necessary, put it down first, then slide it into the desired position.



Keep the head up when handling



Put down, then adjust



Avoid twisting the back or leaning sideways, especially while the back is bent

Manual Handling Information

Good handling technique for pushing and pulling

Here are some practical points to remember when loads are pushed or pulled.

- **Handling devices.** Aids such as barrows and trolleys should have handle heights that are between the shoulder and waist. Devices should be well-maintained with wheels that run smoothly (the law requires that equipment is maintained). When purchasing new trolleys etc, ensure they are of good quality with large diameter wheels made of suitable material and with castors, bearings etc which will last with minimum maintenance. Consultation with your employees and safety representatives will help, as they know what works and what doesn't.
- **Force.** As a rough guide the amount of force that needs to be applied to move a load over a flat, level surface using a well-maintained handling aid is at least 2% of the load weight. For example, if the load weight is 400 kg, then the force needed to move the load is 8 kg. The force needed will be larger, perhaps a lot larger, if conditions are not perfect (eg wheels not in the right position or a device that is poorly maintained). The operator should try to push rather than pull when moving a load, provided they can see over it and control steering and stopping.
- **Slopes.** Employees should enlist help from another worker whenever necessary if they have to negotiate a slope or ramp, as pushing and pulling forces can be very high. For example, if a load of 400 kg is moved up a slope of 1 in 12 (about 5°), the required force is over 30 kg even in ideal conditions - good wheels and a smooth slope. This is above the guideline weight for men and well above the guideline weight for women.
- **Uneven surfaces.** Moving an object over soft or uneven surfaces requires higher forces. On an uneven surface, the force needed to start the load moving could increase to 10% of the load weight, although this might be offset to some extent by using larger wheels. Soft ground may be even worse.
- **Stance and pace.** To make it easier to push or pull, employees should keep their feet well away from the load and go no faster than walking speed. This will stop them becoming too tired too quickly.

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.

Manual Handling Information

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.

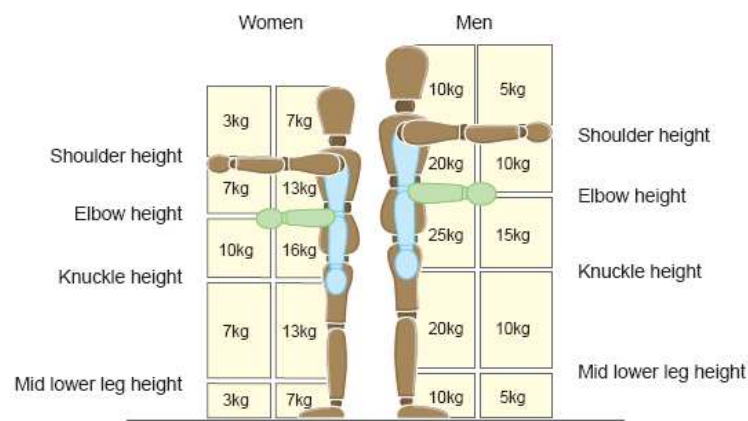


Figure 2 Lifting and lowering

- 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.

Manual Handling Information

Pushing and pulling

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

	Men	Women
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 (eg that the load can be readily grasped with both hands) are not met;
- the person doing the lifting has reduced capacity, eg 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.

Manual Handling Information Reminder

Adopt a good posture

When lifting from a low level, bend the knees. But do not kneel or overflex the knees. Keep the back straight, maintaining its natural curve (tucking in the chin helps). Lean forward a little over the load if necessary to get a good grip. Keep the shoulders level and facing in the same direction as the hips.



Manual Handling Information Reminder

Get a firm grip

Try to keep the arms within the boundary formed by the legs. The best position and type of grip depends on the circumstances and individual preference; but must be secure.

A hook grip is less tiring than keeping the fingers straight. If you need to vary the grip as the lift proceeds, do it as smoothly as possible.



Manual Handling Information Reminder

Keep close to the load

Keep the load close to the trunk for as long as possible. Keep heaviest side of the load next to the trunk. If a close approach to the load is not possible, slide it towards you before trying to lift.

Don't jerk

Lift smoothly, raising the chin as the lift begins, keeping control of the load.

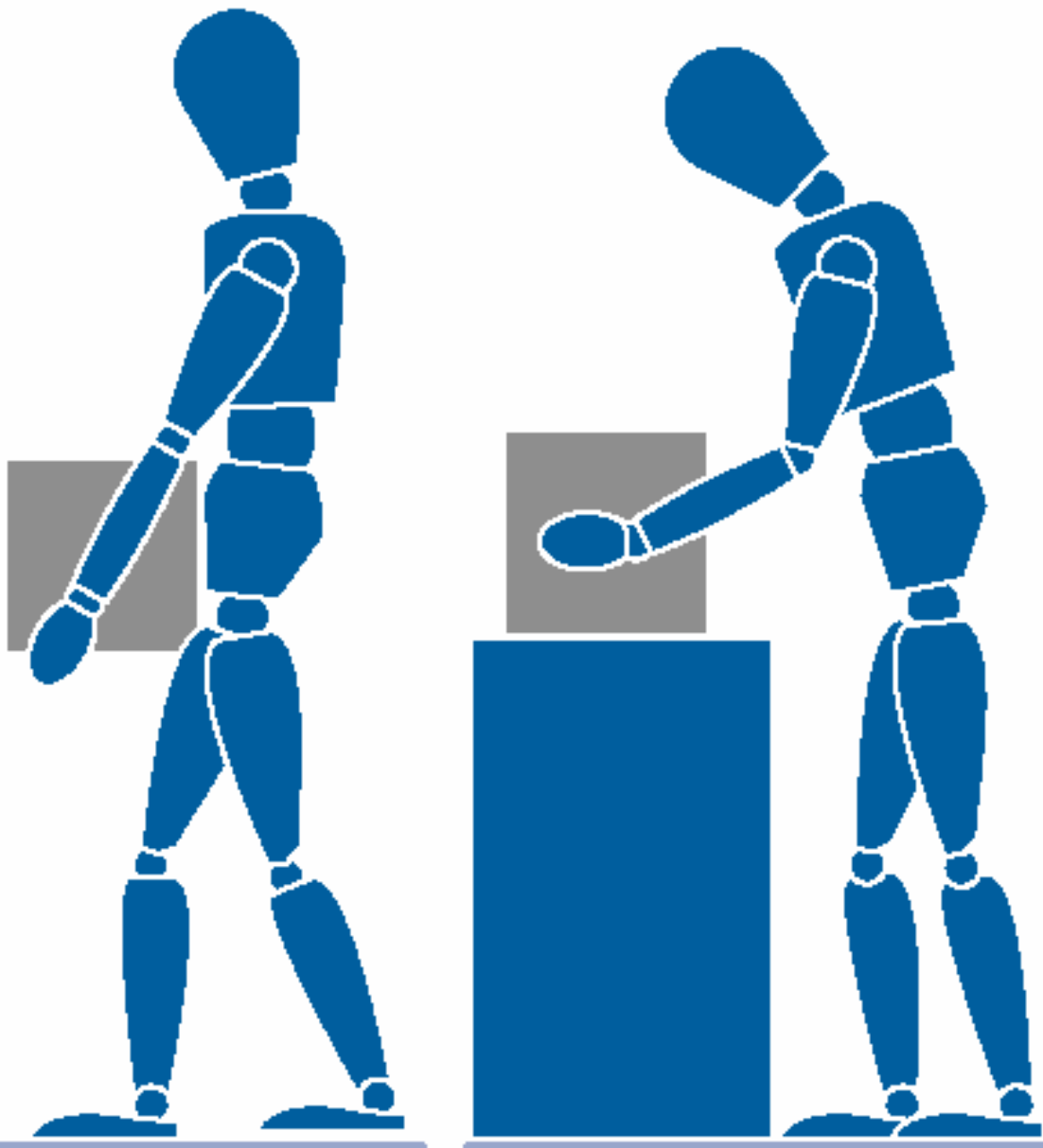
Move the feet

Don't twist the trunk when turning to the side.

Manual Handling Information

Put down, *then* adjust

If precise positioning of the load is necessary, put it down first, then slide it into the desired position.



Manual Handling Information Reminder

7 Steps to Safe Lifting - Base Movement

- 1st Assess the load – can you lift it safely?
- 2nd Place your feet at ten-to-two
- 3rd BEND you knees
- 4th Back - KEEP IT STRAIGHT & UPRIGHT
- 5th Neck & head – keep your chin up.
- 6th Grip – “front knee, high hand, far corner” and “back knee, low hand, near corner”.
- 7th Load - hold it in close to your pelvis.

- *Remember* – use these good principles for lifting in different situations and don't stick blindly to rules and procedures

Manual Handling Information Reminder

Points to remember:

- ❑ Practicing good lifting technique does not enable you to lift more than you could before. It means that, whatever your individual capabilities, your chances of injury are reduced.
- ❑ Good technique is just one of a number of control measures, within the hierarchy of control, that the employer has to put in place to reduce manual handling risks; it is not a panacea.
- ❑ This is about a cultural change, about not accepting practices because that's the way they've always been done.