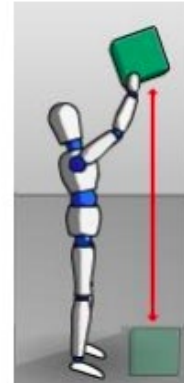
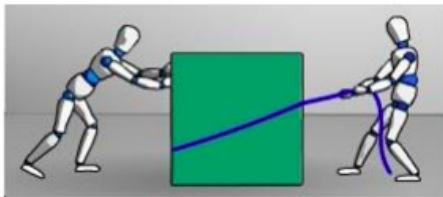


Manual Handling

What is manual handling?

Manual handling can be described as the lifting, carrying, holding, or pushing and pulling of any object. This description covers a wide range of activities – not all of which occur in the workplace, safe manual handling techniques apply equally everywhere.

The load does not have to be very large or heavy – if you have to lift something to, or lower something from a high shelf, for example, you will be stretching quite a bit, and the object doesn't have to be very big to cause a problem!



Injuries can occur in several ways:



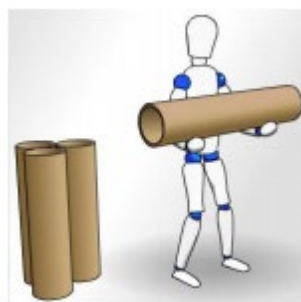
heavy work



awkward postures



existing injury or condition



repeated work

There are three steps we should take to reduce the risk of manual handling injury.

1. AVOID

Does the object have to be moved? Can the task be completed without the object moving? Can it be moved later, when there are more people to help?

2. ASSESS

Assess the task carefully, considering the:

- load itself (is it heavy or awkward to hold),
- task (the movement you need to undertake with the load)
- environment (the area you will be moving in)

3. REDUCE

Seek to reduce the risks, perhaps by using lifting equipment, or enlisting the aid of a colleague to move the item with you.

TECHNIQUES

Always **THINK** and assess before commencing a manual handling operation, ask yourself some of these questions:

- Can I avoid the need to lift, push, pull, carry or lower the load?
- Are there workplace precautions and a safe system already agreed?
- Can I use a handling aid and protective equipment?
- Do I need help from someone?
- Is there an easier and safer way of handling the load?
- What is the weight and centre of gravity of the load?
- What are the contents of the load, will they shift or are they harmful?
- Are there handles I can use to gain a good grip?
- What route will I take and is it clear?

Get the POSTURE correct

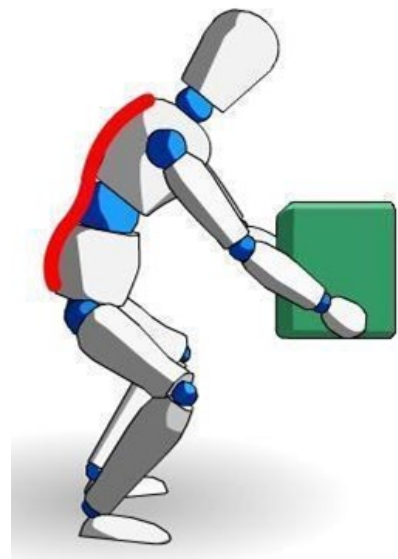
At the start of a lifting operation try and relax the body and muscles before handling and try to avoid:

- Deep stooping postures with the feet parallel and the back bent – this will apply big forces on the low back and may overstretch muscles putting them at risk
- Squatting right down so that your legs are completely flexed – you will have to use a lot of effort to lift your body and the load and maintain a good balanced posture.

Do try to:

- Grip the load securely or use the handles.
- Raise the head as you lift to lock the back in an upright posture.
- Put some smooth movement and momentum into operation.

Adopt a STABLE position

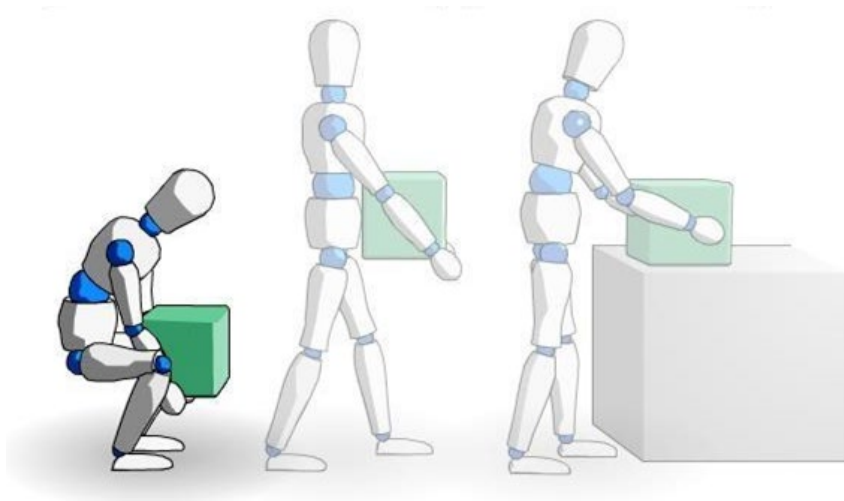


Manual Handling

- A good stable posture is essential to protect your balance and yourself from risk of injury.
- Feet should be hip width apart with one foot slightly in front of the other, not parallel.
- This will provide a stable base to lift from safely.
- Ensure that clothing is not too tight and restricts free flowing movement.

Keep the load **CLOSE** to the body

At the point of lifting and while carrying the load, keep it close and tight into the body, with the heaviest side closest to the body. This will reduce the risk of injury from the load exerting forces on the back and muscles.



Avoid flexing the back once the load has been lifted. This could be as a result of the load being too heavy and a result of a wrong assessment. This flexing action places harmful forces on the structure of the back and muscles.

Avoid twisting while lifting, lowering, pushing, and pulling the load at any height. Twisting places shearing forces on the structure of the back and can overload muscles increasing the risk of injury.

Attempt to keep the shoulders and trunk of the body parallel with the pelvis and

hips, remembering this will reduce the risk of injury.

Don't lift or handle more than you can manage

As part of your assessment, you will know not to lift, lower, push or pull a load you cannot manage. To achieve an improved grip on the load and get the load close enough, try re-positioning it to a better position.

This can be done by lifting it onto its edge or breaking the operation into a series of smaller movements to get it into a good position to move.

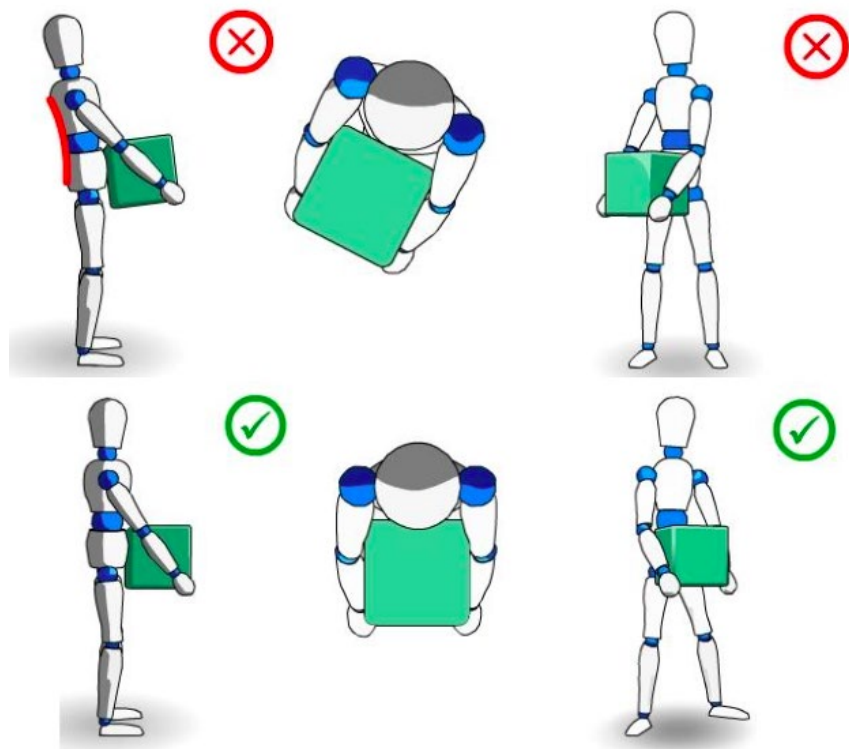
Getting help is often a good solution but this has risks as well.

- The operation has been talked through with your partner(s)
- You are both aware that the weight of the load may not be shared evenly.
- One person is in charge of the lift and coordinates the operation.
- Both workers lift together by counting down '3-2-1 lift'
- The area is clear as one worker may be walking backwards.
- You are aware that twisting of the low back can occur if both workers are facing the same direction.

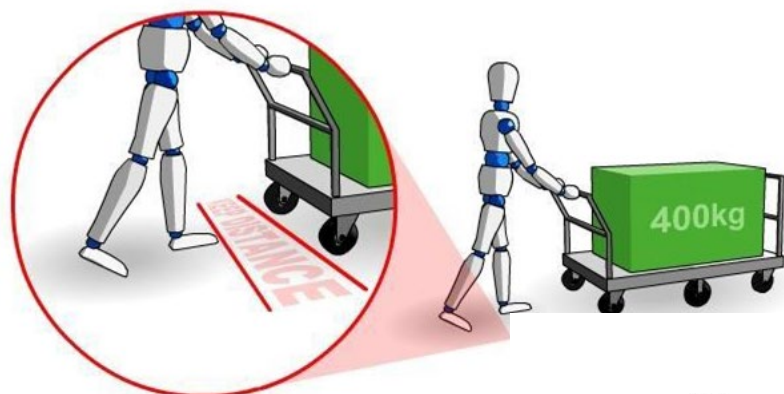
Handling aids assist risk reduction and can include pallet trucks, barrows, trolleys, cages, skates and sack trucks.

To make it easier to push or pull, ensure:

- That your feet are well away from the load
- That you walk no faster than a reasonable walking speed, this will stop you from becoming tired.



Manual Handling



Moving a load over soft or uneven surfaces will require higher force. On an uneven surface, the force needed to start the load moving could increase to 10% of the load weight. The use of larger wheels can offset this value, however soft ground may increase the required force.



For example, a weight of 400kg would require a force of 40kg, which would need two or more persons to move safely.

FEMALE		HEIGHT	MALE	
3kg	7kg	SHOULDER	10kg	5kg
7kg	13kg	ELBOW	20kg	10kg
10kg	16kg	KNUCKLE	25kg	15kg
7kg	13kg	MID LOWER LEG	20kg	10kg
3kg	7kg	LEG	10kg	5kg

There is no such thing as a safe weight limit for manual handling – it depends on the person, the shape of the load and environmental factors etc. However, the table above gives a rough guide to what is reasonable under normal conditions. NOTE: The larger figure is for an easily-held object close to the body – the smaller figure is for an awkward item or if the item is held away from the body. The weights also vary

Manual Handling

according to what height the lift will begin and end at – the lowest figure found at the heights used during the lift is the guideline comfortable lifting limit, but everybody will be different.

Reading this handbook won't make you stronger or able to lift heavier weights! However, if you follow the principles described, you will significantly reduce your risk of manual handling injuries – at work, and at home. Do not be afraid to ask for help, if you think you need it – nobody will think the worse of you if you do.