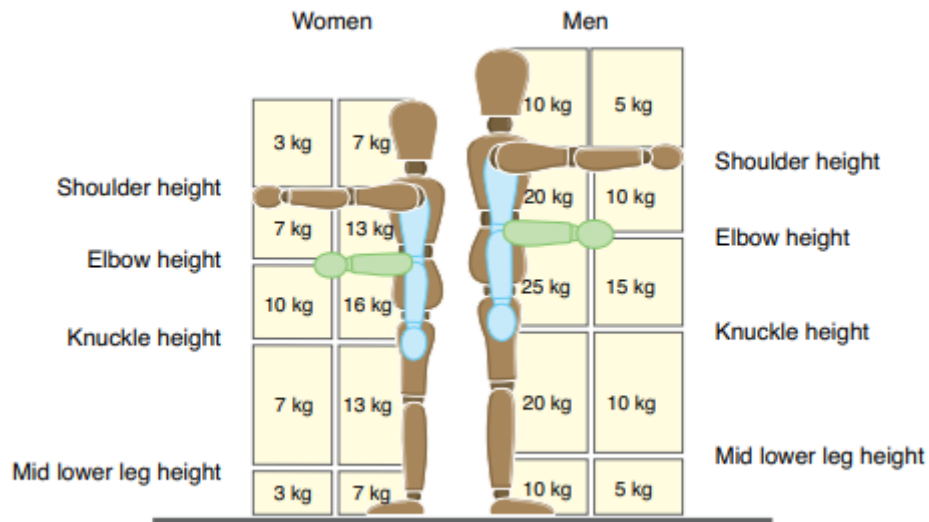


THE HSE LIFTING AND LOWERING FILTER



Source: HSE, L23 (Fourth edition - Manual handling, Manual Handling Operations Regulations 1992)

Each box contains a filter value for lifting and lowering in that zone. The filter values are reduced if handling is done with arms extended, or at high or low levels, as that is where injuries are most likely to happen.

Observe the work activity you are assessing and compare it to the diagram. First decide which zone or zones the lifter's hands pass through when moving the load. Then assess the maximum weight being handled. If it is less than the value given in the matching box, the operation is within the guidelines.

If the lifter's hands enter more than one zone during the operation, use the smallest weight. If either the start or end positions of the hands are close to a boundary between two boxes you should use the average of the weights for the two boxes.

The filter for lifting and lowering assumes:

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

Carrying risk filter

The filter weights for lifting and lowering apply to carrying operations where the load:

- is held against the body;
- is carried no further than about 10 m without resting;
- does not prevent the person from walking normally;
- does not obstruct the view of the person carrying it;
- does not require the hands to be held below knuckle height or much above elbow height (owing to static loading on the arm muscles)

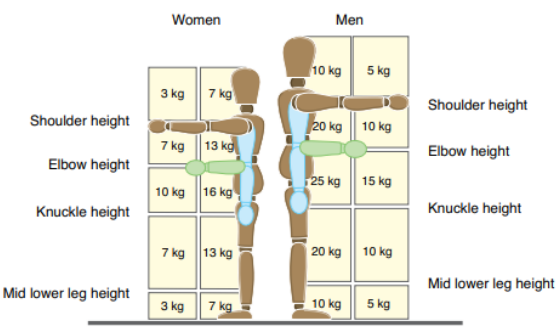
Where the load can be carried securely on the shoulder without first having to be lifted (as, for example, when unloading sacks from a lorry) you can apply the filter values to carrying distances up to 20 m.

If the weight exceeds the filter weight or these assumptions are not met, then you can carry out a full risk assessment.

THE HSE LIFTING AND LOWERING FILTER

There are different filters for four types of manual handling operations. These are: lifting and lowering, carrying for up to 10 m, pushing and pulling for up to 20 m handling while seated.

Lifting and lowering risk filter



Height	Women	Men
Shoulder height	3 kg / 7 kg	10 kg / 5 kg
Elbow height	7 kg / 13 kg	20 kg / 10 kg
Knuckle height	10 kg / 16 kg	25 kg / 15 kg
Mid lower leg height	7 kg / 13 kg	20 kg / 10 kg


The filter for lifting and lowering assumes:

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

The carry risk filter:
(The filter weights for lifting and lowering in apply to carrying operations where the load).

- is held against the body;
- is carried no further than about 10 m without resting;
- does not prevent the person from walking normally;
- does not obstruct the view of the person carrying it;
- does not require the hands to be held below knuckle height or much above elbow height (owing to static loading on the arm muscles).

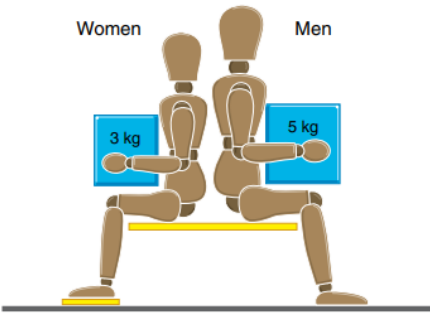
Pushing and pulling risk filter



The task is likely to be low risk if:

- the force is applied with the hands; and
- the torso is largely upright and not twisted; and
- the hands are between hip and shoulder level; and
- the distance involved is no more than about 20 m.

Handling while seated risk filter



Source HSE guidance document L23

The filter values for handling operations carried out while seated, shown in are:

Men	Women
5kg	3Kg

These values only apply when the hands are within the zone shown. If handling beyond this box zone is unavoidable, you should make a full assessment.

Annex 2