

Ergonomics & manual handling – stacking shelves >

This information bulletin provides information on ways of reducing manual handling injuries when stacking shelves. It is particularly relevant for people who work in shops, warehouses, libraries, sections managing files, hospitals or other workplaces where stacking shelves is a part of the job.

What is manual handling ?

When stacking shelves, manual handling means lifting, lowering, pushing, pulling, carrying, moving or holding any item which has to be moved onto or removed from shelves.

Tasks associated with stacking shelves may also be associated with other manual handling risks such as moving trolleys or removing items from pallets. These tasks are covered by other bulletins in this series. General information on manual handling can be found in Information Bulletin No. WH 06.02.01.

Preventing manual handling injuries

Manual handling tasks likely to be a risk to workers' health and safety should be identified and assessed in detail to determine the nature and the extent of the problems. Where a person's health and safety is at risk, solutions to the problems need to be found in order to minimise the risk.

The following general problems and suggested solutions are examples of how manual handling injuries may occur when stacking shelves and how these can be reduced.

Problems

Strain injuries may occur when stacking shelves where:

- items are double handled;
- items are stored above shoulder level;
- items are lifted from below mid-thigh height;
- items are too heavy when other risk factors, such as the number of times the items are moved or the distance moved, are taken into account;
- the weight of items is unknown and they are heavier than expected for their size or shape;
- excessive forward reaching is required when lifting or placing loads on and off shelves;
- there is not enough space to handle items safely; and
- the load is unstable or awkward to move.

putting safety first >



Solutions

Here are some ideas that may be suitable for your workplace. The examples provided may need to be used in combination with each other. Other risk control strategies, for example training, form part of any well thought out solution.

- Eliminate double handling by keeping the amount of stock stored to a minimum so that items can be placed directly onto shelves for sale or use;
- Organise storage so that heavy or high turnover stock is stored at waist height;
- Limit the height of shelves to shoulder height;
- Improve access by having rotating shelves;
- Limit the depth of shelves;
- Stack stock in their cartons rather than unloading individual containers onto shelves;
- Ensure cartons are correctly labelled with their contents and weight;
- Store large awkward items such as bicycles and wheelchairs at ground level;
- Use step stools and steps to avoid over reaching;
- Ensure design of steps and stools is safe and appropriate;
- Ensure sufficient space is allocated for handling when designing shelving work areas;
- Use drawers instead of low shelves to eliminate bending and reaching; and
- Use height adjustable trolleys for unloading and loading items.

Further information

Codes of practice

Codes of practice are approved under the [Work Health Act](#) for the purpose of providing practical guidance. The following approved Code of Practice provides guidance in relation to manual handling.

National Code of Practice for Manual Handling ([NOHSC: 1001](#) (1990))

Other references

The following references provide additional information and guidance in relation to manual handling:

- [Manual Handling](#) (booklet published by NOHSC which is a simplified guide to the Code of Practice)
- Information bulletin no. WH 06.02.01 - Manual Handling
- Other information bulletins on specific manual handling hazards.

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