Manual Handling

Stacking Shelves
When stacking shelves, manual handling requires lifting, lowering, pushing, pulling, carrying, moving, or holding any item which has to be moved on to or removed from shelves. Shelf stacking may be associated with moving trolleys or unstacking pallets. These tasks are covered by other brochures in this series.

Manual handling hazards are covered by the general duty provisions under OSHA standards. It is important to consult with employees performing the tasks as they are likely to be aware of the risk of manual handling injuries which may be associated with their jobs.

Manual handling tasks likely to be a risk to workers' safety and health should be identified and assessed in detail to determine the nature and the extent of the problems.

The following general problems and suggested solutions are examples of how manual handling injuries may be reduced.

Problems
Strain injuries may occur when:
- 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.
- The load is unstable or awkward to move.

Solutions
Here are some ideas that may be used to avoid strain injuries. 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.
- Organize 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 labeled 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.
• Use height adjustable trolleys for unloading and loading items.

Identifying the problems with material handling and implementing the solution will reduce the number of material handling injuries your company will incur.