OH&S
Manual Handling

This information is provided for The University of Newcastle website and contains a summary from manual handling lectures to university staff during 2007

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Manual Handling in the Workplace

- Manual handling methods adopted are workplace **behaviours** – they can be modified
- Manual handling is influenced by many factors including the ergonomic design of the workplace
- Poor manual handling is associated with increased risk of musculoskeletal injury

Injury Prevention Strategies

- Assessing risk
- Ergonomic design & intervention
- Careful planning of each task
- Awareness of the work environment
- Addressing manual handling technique

Controlling Risk

- Modify the work area / workstation
- Modify the object
- Modify the method of performance
- Modify the task
- Utilise equipment available
- Address management issues & cultural behaviours in the workplace

MH Risk Factors

1. Sudden, jerky or hard to control movements
2. Bending, reaching or twisting
3. Sustained postures or positions
4. Fast or repetitive work
5. Heavy loads

How much weight can be lifted?

- No simple answer!
- Considering the weight of an object alone will not significantly reduce the risk of injury

Factors associated with lifting

- Assessment of relative lifting risk involves:
  - Technique of lifting
  - Individual personal capacity
  - The time taken to lift the object
  - The frequency of lifting required

Lifting Technique

Stoop, semi-squat and squat

- Stoop lifting is not recommended
- Semi-squat with a straight lower back is considered safe and is probably the most practiced technique
- Squat lifting is also a good technique for the lower back but has increased stress on knees and may be limited by pre-existing knee pathology

Straker (2003)

Lifting Guidelines

- Utilise mechanical aids (hoists, etc)
- Reduce the load (weight)
- Keep the load close to the body
- Avoid lifting from a stooped posture
- Avoid lateral trunk flexion while lifting

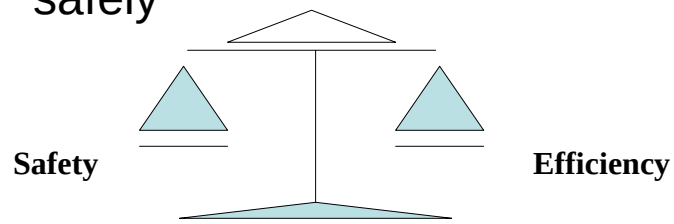
Straker (2003a)

Lifting Guidelines

- Avoid trunk rotation while lifting
- Move feet when changing directions
- Raise the initial height of low loads
- Work between hip and shoulder heights
- Push / pull in line with body (i.e. not across body)

Lifting Guidelines

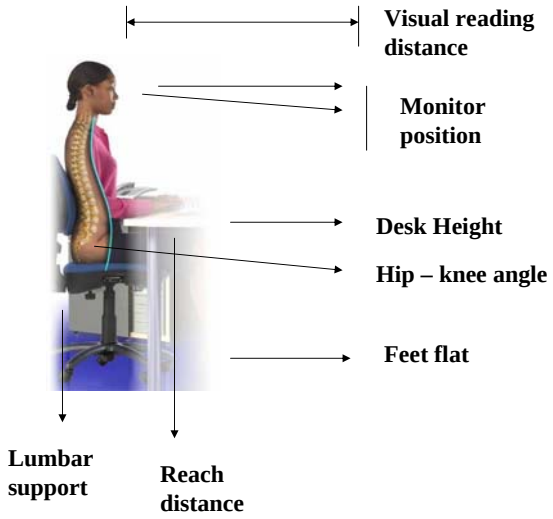
- Avoid high acceleration of the load (lift smoothly)
- Take the time to perform the task safely



Risk Factors with PC use

- Ergonomic setup of desk / PC
- Repetition of tasks (e.g. data entry)
- Time spent at the desk / PC
- Type of postures sustained
- Direct pressure (e.g. under thighs)
- Visual reading distance

Factors to consider with Workstation Setup



If you are unsure about desk based ergonomic setup, seek advice from Health & Safety personnel

Additional information sources

- NOHSC. (2003). Barriers to the adoption of safe manual handling practices. A literature review. Data Analysis & Research Coordination, National Occupational Health & Safety Commission (NOHSC). Canberra, Australia.
- NOHSC. (2005). National code of practice for the prevention of musculoskeletal disorders (MSD) from manual handling at work. NOHSC.
- NOHSC. (1995). Core training elements for the national standard for manual handling. NOHSC.
- Straker, L. (2003). Evidence to support using squat, semi-squat and stoop techniques to lift low lying objects. International Journal of Industrial Ergonomics, 31(3), 149-160.
- Straker, L. (2003a). Evidence to support using squat, semi-squat and stoop techniques to lift low lying objects. International Journal of Industrial Ergonomics, 31(3), 143-148.