Ergonomics and Manual Handling Safety Talk

WHAT'S AT STAKE?

"Manual handling" means using your body to exert force to handle, support or restrain any object, and includes not only lifting and carrying but also repetitive tasks. A manual handling task that has the potential to cause injury is a **"hazardous manual handling task"**.

Musculoskeletal Disorders

Manual material handling (MMH) work contributes to a large percentage of reported musculoskeletal disorders. Musculoskeletal disorders often involve strains and sprains to the lower back, shoulders, and upper limbs. They can result in protracted pain, disability, medical treatment, and financial stress for those afflicted with them.

Ergonomics

Scientific evidence shows that effective **ergonomic interventions** can lower the physical demands of MMH work tasks, thereby lowering the incidence and severity of the musculoskeletal injuries they can cause. Their potential for reducing injury related costs alone make ergonomic interventions a useful tool for improving a company's productivity, product quality, and overall business competitiveness. But very often productivity gets an additional and solid shot in the arm when managers and workers take a fresh look at how best to use energy, equipment, and exertion to get the job done in the most efficient, effective, and effortless way possible.

WHAT'S THE DANGER?

CAUSES OF MSDs

A musculoskeletal injury (MSI) is an injury of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue arising from risk factors such as awkward postures, repetitive motions and forceful exertions. The injury can be acute or cumulative.

Prolonged exposure to ergonomic risk factors can cause MSDs. Conditions likely to cause MSD problems include:

- Exerting excessive force.
- Excessive repetition of movements that can irritate tendons and increase pressure on nerves.
- Awkward postures, or unsupported positions that stretch physical limits, can compress nerves and irritate tendons.
- Static postures, or positions that a worker must hold for long periods of time,

can restrict blood flow and damage muscles.
- Motion, such as increased speed or acceleration when bending and twisting, can increase the amount of force exerted on the body.
- Compression, from grasping sharp edges like tool handles, can concentrate force on small areas of the body, reduce blood flow, nerve transmission and damage tendon sheaths.
- Inadequate recovery time due to overtime, lack of breaks and failure to vary tasks, leave inadequate time for tissue healing.

MSDs can affect nearly all tissue in the body: nerves, tendons, tendon sheaths and muscles. The most frequently affected areas of the body are arms and the back.

The most common manual handling activity is keyboard work but there are a wide range of other manual handling activities that occur every day such as reloading the photocopier, carrying materials to lectures, sorting, lifting, using tools and handling files.

All tasks in the workplace involving hazardous manual handling can be identified and the risk of injury assessed. Not all manual handling tasks are hazardous. Hazard identification is the way you can of sift through tasks to find out which ones have the potential to cause injury.

Potentially hazardous manual handling involves any of the following:

- repetitive or sustained application of force (e.g. pushing or pulling a heavily loaded trolley)
- repetitive or sustained awkward posture (e.g. carrying out work in a constrained space)
- repetitive or sustained movement (e.g. keyboard work)
- application of high force (lifting or moving heavy loads)

Priority in identification and assessment should be given to routine tasks, tasks carried out by a number of people and tasks that staff have concerns about.

HOW TO PROTECT YOURSELF

HAZARD IDENTIFICATION

Hazard identification is the key to sifting through tasks to determine which hazards have potential for injury. **This is called a risk-assessment. Manual Handling Risk Assessment**

If the assessment indicates that there is a reasonable likelihood of injury, suitable control or prevention measures must be introduced to reduce the risk as much as practicable. If the hazardous manual handling task cannot be eliminated, standard controls measures include:

- Redesigning the task, load or workstation
- Providing mechanical assistance or aids
- Providing safe working procedures
- Providing training

In reality, controls are usually a combination of these measures.

Where ever possible, the assessment of manual handling risks and the implementation of control measures must be carried out in consultation with OHS representatives and the staff affected.

ROLES OF MANAGERS/SUPERVISORS/ EMPLOYEES

Mangers/Supervisors

- identify any hazardous manual handling tasks by using either the WorkSafe Manual Handling Risk Assessment for general manual handling or the Computer Workstation Risk Assessment for computer based work.
- using the checklist, assess the risks associated with any task identified.
- eliminate the task if reasonably possible (e.g. automate the task)
- otherwise change something to reduce the risk (e.g. substitute a lighter load, divide the load, two people to do the task instead of one, provide a trolley)
- when considering acquisition of plant, evaluate any manual handling risks first and take them into account in the acquisition decision.

Employee Training

There are no specific training requirements for ergonomics. However, employees who have been trained to identify and avoid ergonomic hazards are better able to avoid those hazards, leading to a safer workplace. To get the most out of an ergonomics program, an employer can train workers on:

- Common MSDs and their signs and symptoms.
- The importance of reporting MSDs, and signs and symptoms, as soon as possible.
- How to report MSDs in the workplace.
- Risk factors and work activities associated with MSDs hazards.

Training Tips

- Using the employee handout, define ergonomics.
- Provide employees with information on MSDs and their signs and symptoms.
- Stress the need for early reporting, and explain the system to report MSDs, signs and symptoms of MSDs, and MSD hazards.

Ergonomics Overview

Ergonomics is the science of fitting the job to the worker. Designing work stations and tools to reduce work-related musculoskeletal disorders (MSDs) can help workers stay healthy and companies to reduce or eliminate the high costs associated with MSDs.

Laptops and tablets

Although laptops and tablets allow much more flexible computer use they are not designed for prolonged use. If you are using a laptop for more than 30 minutes consider the use of a separate keyboard and mouse. The laptop itself can be used as a monitor. For regular use, docking stations with separate mouse, keyboard and monitor are the recommended arrangement.

Sit Stand Workstations

Sit stand workstations are one way to reduce the amount of time we spend sitting while at work. Prior to the purchase of a sit stand workstation a risk assessment should be undertaken by the local area supervisor to ensure the new equipment does not introduce any new OHS issues to the workplace. Issues to consider include who will use the workstation, is there a privacy issue for those who are seated, are computer points readily available, will all electronic devices be stable when moving the desk up or down and are any crush points created due to other structures above or

below the desk. Consider any other specific hazards in the area, once the risk assessment is completed and hazards are controlled.

FINAL WORD

In addition to reducing the risk of injury, good ergonomics and a healthy work environment can increase productivity, improve quality, reduce rework, lower employee turnover rates, reduce training costs and improve workplace morale.