Hazardous manual tasks are recognised as a major occupational safety and health risk for the Western Australian mining industry. A manual task can become hazardous when there is repetitive or sustained application of force, awkward posture, sustained vibration or handling of unstable or unbalanced loads. Injuries from performing hazardous manual tasks are collectively referred to as musculoskeletal disorders (MSDs). MSDs account for a third of all injuries for the WA mining industry.

This snapshot covers hazardous manual tasks that resulted in MSDs for the period from 1 September 2016 to 31 August 2017.

For more information about occupational safety and health, visit our website www.dmirs.wa.gov.au

Injuries by employment type

- **117** Contract
- **238** Permanent

Injuries by days lost

- **2,373** work days lost
- **11,467** work days on alternative duties

Injuries by body parts injured

- **24%** shoulder
- **29%** back
- **13%** arm (includes elbow)

n = 355

70% of MSDs resulted from overexertion associated with moving objects, pulling or pushing and lifting and carrying.

Top three body parts injured

Injuries by severity

- **81%** of the 355 MSDs identified as hazardous manual task injuries were classified as serious
- **28%** of the injuries were lost time injuries

Back injuries by top three locations

- **37%** open pit production or development areas
- **23%** treatment plant or ore processing
- **13%** surface workshop

Heavy equipment workshops had the highest number of injuries at 11

Back injuries by top three occupations

- **40%** surface mining production and services
- **21%** ore treatment occupations
- **14%** metalworking trades

Haulage truck drivers and processing plant operators had the highest number of injuries at 17 each

Shoulder injuries by top three locations

- **42%** treatment plant or ore processing
- **20%** surface workshop
- **15%** open pit production or development areas

Heavy equipment workshops had the highest number of injuries at 11

Shoulder injuries by top three occupations

- **31%** ore treatment occupations
- **26%** metalworking trades
- **16%** surface mining production and services

Processing plant operators had the highest number of injuries at 23

Note: The information in this snapshot has come from a keyword search of incident reports.
Tackling hazardous manual tasks

Safe design

Identify and assess all risks

Use hazard identification and risk assessment methods early in the design process to eliminate or minimise the risk of injury from chronic wear and tear and large forces.

Examples of safe design

- Adjustable vehicle seating improves operator comfort and reduces jarring and jolting.
- Physical support and remote control for high vibration power tools, especially when working overhead.

Buy safe

Consult and consider MSD risks before purchasing new items. Where possible, workers using the items should be given an opportunity for trial and feedback.

Participative ergonomics

Participative ergonomics is the internationally recommended approach to reducing the overall risk from hazardous manual tasks and preventing MSDs.

Work teams, with their supervisors, are well-placed to identify their hazardous manual tasks and contribute to the risk assessment process. Based on the risk assessment, the team will consult with management, develop risk control options, plan their implementation and evaluate the effectiveness of the control measures.

Benefits

- Better identification of hazardous manual tasks, risk assessment and solutions because of the workers’ relevant knowledge and hands-on experience.
- Worker ownership through the process results in increased support and understanding of control measures.

Before you start

The most effective way to manage a hazardous manual task is to determine what it is about a task that makes it hazardous then eliminate that task if possible before starting.

Simple questions to ask yourself

- Do I need to complete this task?
- Why is this task being done this way?
- Is there mechanical assistance I can use?
- Can I slide instead of lift?
- Can I push rather than pull?
- Do I have any muscular limitations?
- Is my posture and body positioning safe?
- Do I need help to complete this task?

The straw that broke the camel’s back

MSDs are commonly a result of cumulative ‘wear and tear’ on the musculoskeletal system. Often a single event is reported to be the direct cause of a particular musculoskeletal disorder, whereas it may result from extended exposure to sub-critical stress or strain. To effectively manage manual task risks, consider the cumulative nature of MSDs.

National target

Safe Work Australia has set a reduction target of 30% from 2012 to 2022 for compensation claims of one week or more duration relating to MSDs. Here is how the Western Australian mining industry is progressing, using number of MSDs per 1,000 employees with one week or more off work or on alternative duties.

For more information see our safety alerts and summaries for industry awareness at www.dmirs.wa.gov.au/ResourcesSafety
Past issues of monthly safety and health snapshot series can be viewed at www.dmp.wa.gov.au/SafetySnapshots