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# NSW mining and extractives industry

#### Introduction

It is important that potential musculoskeletal disorders (MSD) hazards are identified. Everyone working in mining should understand the nature and sources of risks for MSDs so that informed decisions can be made to eliminate or control them.

#### Lead indicators

The identification and use of both lead and (to a lesser extent) lag health indicators, are useful means to achieve this. Leading indicators are good management practice and so should form the basis of any monitoring and evaluation activities.

#### How to use this fact sheet

Good practice leading indicator activities for the management of higher level risks for MSDs are provided on page three. The approach promotes the use of work health and safety (WHS) management system inputs, rather than health assessment outcomes. This helps ensure that appropriate and proactive steps towards health management are taken. Some activity measures could also be used as leading performance indicators (e.g. surveying employees for MSD symptoms).

The activities are grouped according to 'stages' of system maturity and can be used as a guide to develop and implement a continuous improvement program.

To demonstrate a progression through the stages, an organisation should be able to show that it is carrying out all the activities listed within the previous stage.

#### What are MSDs?

Musculoskeletal disorders (MSDs) include injuries such as sprains and strains of muscles, ligaments, tendons and joints. MSDs most commonly occur from gradual wear and tear to these parts of the body. More than a third of the workers compensation claims in NSW are MSDs and the majority of these are caused by performing hazardous manual task. Parts of the body that are commonly affected include the back, neck, shoulder, elbow, wrist, abdomen and knees.



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#### What is a hazardous manual task?

A task that requires a worker to lift, lower, push, pull carry to otherwise move, hold or restrain any person, animal or thing involving one or more of the following:

- $\rightarrow$  repetitive or sustained force
- $\rightarrow$  high or sudden force
- → repetitive movement
- $\rightarrow$  sustained or awkward posture
- $\rightarrow$  exposure to vibration.

These five factors are also known as the characteristics of a hazardous manual task.

#### How to manage MSDs

The process of hazard identification, risk assessment, risk control and evaluation provides the proper framework within which all MSD risk factors should be considered. Hazards that contribute to the development of MSDs, both acute and cumulative, should follow this process.

## **Further information**

Managing Musculoskeletal Disorders: A practical guide to preventing musculoskeletal disorders in the NSW mining and extractives industry can be accessed at:

www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-andhealth/publications/musculosketetal-disorders.



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## Leading indicator activities

A focus on implementing a compliant approach by information sharing, hazard identification and risk assessment.	<ul> <li>→ Ensures that most employees (e.g. 60%) receive training in the identification of risks for MSDs during induction.</li> <li>→ Conducts MSD symptom surveys annually.</li> <li>→ Has identified and documented most (e.g. 60%) high risk tasks for the development of MSDs.</li> <li>→ Have formal procedures to assess the risks arising from identified hazardous manual tasks.</li> </ul>
A focus on monitoring activities and stakeholder engagement with implementation of combination controls.	<ul> <li>→ Demonstrates that employees receive training in the assessment of hazardous manual tasks.</li> <li>→ Ensures that nearly all (e.g. 85%) of toolbox talks on the risk factors for MSD are conducted within a scheduled timeframe.</li> <li>→ Considers all the risk factors and identifies the source/s of the risk by use of an appropriate risk assessment tool when appropriate.</li> <li>→ Completes nearly all (e.g. 85%) risk assessments on tasks that may contribute to MSDs, in consultation with workers.</li> <li>→ Consults with contractors to ensure that nearly all (e.g. 85%) are managing hazardous tasks to a standard applied by the organisation itself.</li> </ul>



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PROGRESSIVE

A focus on health management system integration. This stage is characterised by implementation of higher order controls and regular reviews of the system's success. Ongoing learning and continuous improvement is the goal.

- → Ensures that all workers have participated in participatory ergonomics training in the identification, assessment and control (including basic ergonomic principles) of tasks likely to contribute to MSDs.
- → Use specific hazardous manual task risk assessment tools to manage risk.
- → Implements risk controls that address the source (root causes) of the risk identified in the risk assessment process.
- → Demonstrates justification where elimination or design (higher order) controls are deemed not reasonably practicable.
- → Uses higher order (elimination/ engineering) controls where feasible to reduce or minimise risks.
- → Consults employees performing the task in the identification and assessment of MSDs risks as well as the review and monitoring of the controls.
- → Consults with employees who perform tasks or use/operate or maintain equipment or plant, during the planning, design and purchasing processes.
- → Conducts periodic external audits of the management of higher risk tasks and incorporates what has been learnt, into future planning to encourage continuous improvements.
- → Submits examples of MSD management solutions for peer review and industry evaluation.

