



# The impact of psychosocial hazards on musculoskeletal disorders

Musculoskeletal disorders (MSDs) can be complex in nature, and it is important to address psychosocial hazards, as well as physical hazards, in preventing and managing these disorders.

**Psychosocial hazards** are aspects of work which have the potential to cause psychological or physical harm. They can arise from, or in relation to, the design or management of work; the working environment; workplace equipment; or workplace interactions or behaviours.

## What are musculoskeletal disorders?

The term 'musculoskeletal disorder' covers any injury, damage or disorder of the musculoskeletal system (that is, muscles, nerves, tendons, ligaments, joints and bones).

This comprises over 100 diseases and syndromes, including carpal tunnel syndrome, arthritis, sciatica, chronic back pain as well as musculoligamentous strains, sprains and tears.

27 percent of the Australian population have chronic MSDs, with higher percentages among older people and women<sup>i</sup>.

Globally, MSDs are a leading cause of disability, significantly reducing people's mobility and agility, and leading to; early exit from work, lower levels of wellbeing, and reduced ability to participate in society<sup>ii</sup>.

## What causes these disorders?

Exposure to workplace hazards is a major cause of MSDs<sup>iii</sup>.

MSDs may result from a single event, but more commonly arise from exposure to one or more hazards over an extended period<sup>iv</sup>.

A variety of psychosocial and physical hazards can lead to people developing workplace MSDs. This includes workplace environmental factors, work organisation and work design, tasks, equipment and workers' individual factors<sup>v</sup>.

Workplace hazards are estimated to account for **17 to 37 percent** of all low back pain<sup>vi</sup>.



## The impact of psychosocial hazards on musculoskeletal disorders

Psychosocial hazards increase the risk of workers developing MSDs. These hazards include work demands, job strain, lack of support, bullying and conflict.

“There is **strong evidence** that the risk of MSDs increased with high job demands, high job strain, high effort-reward imbalance, low social support, and low perceived fairness.

There is **reasonable evidence** of the link between low job control, low work time, high workplace bullying, high hindrance stressors, high role conflict and interpersonal conflicts.”

*Taibi, Y., Metzler, Y.A., Bellingrath, S., & Müller, A., (2021). A systematic overview on the risk effects of psychosocial work characteristics on musculoskeletal disorders, absenteeism, and workplace accidents. Applied Ergonomics, 95, 103434, page 9.*

## What can we do to prevent injury?

Implement practical strategies to address both physical and psychosocial factors. This includes strategies to:

- > improve relationships at work
- > increase job control
- > provide support
- > manage change and job demands
- > ensure recognition and reward; and
- > use worker skills and strengths.

### 1. Create a positive psychosocial work environment

Addressing psychosocial hazards and creating a positive work environment is key to preventing MSDs. By fostering psychological safety, workplaces create a safe space and respectful environment for people to raise concerns and bring their full selves to work.

### 2. Design good work

Good work design is one of the most effective ways to eliminate psychosocial and physical hazards. The design of work affects the way people feel and can influence our motivation, engagement and stress levels at work.

Good work design looks at the physical, biomechanical, cognitive and psychosocial characteristics of jobs, such as how physically or mentally demanding they are, and identifies what is required for optimal outcomes. It considers individual differences and is tailored to specific work situations.

Research indicates that<sup>vii</sup>:

- > the greatest benefit in MSD prevention is from addressing psychosocial hazards compared to the physical hazards
- > improving job satisfaction can reduce 17 to 69 per cent of work-related back disorders
- > improving a worker’s ability to control their work can reduce 37 to 84 per cent of work-related wrist disorders.

For more information on good work design, see Comcare’s suite of resources on Good Work Design at <https://www.comcare.gov.au/safe-healthy-work/healthy-workplace/good-work-design/about-good-work-design>

### 3. Assess the risk

Apply the risk assessment from the [Hazardous Manual Tasks Code of Practice](#), making sure you include psychosocial as well as physical risks in your assessment. There is a range of tools that can assist you to assess the risk.

For information on various tools to assess the risks see the NSW Centre for Work Health and Safety [report on the link between workplace stressors and physical injury](#)<sup>viii</sup>.

### 4. Consultation

Consult with workers and their health and safety representatives. Those who perform or have performed the task are best positioned to provide valuable information concerning any physical or psychosocial hazards that may need to be addressed.

## Who is responsible for health and safety in the workplace?

Under section 19 of the *Work Health and Safety Act 2011* (Cth) (**WHS Act**), persons conducting a business or undertaking (**PCBUs**) have a primary duty of care, and must ensure, so far as is reasonably practicable, the health and safety of their workers while they are at work. This includes ensuring:

- > the provision and maintenance of a physical and psychosocial work environment that is without risks to health and safety
- > the provision and maintenance of safe systems of work
- > the provision of information, training, instruction or supervision necessary to protect all persons from psychosocial risks to their health and safety.

Workers also have a duty under section 28 of the WHS Act, to take reasonable care for their own health and safety and that their acts or omissions do not adversely affect the health and safety of other persons, to comply with reasonable safety instructions and to co-operate with reasonable health and safety policies and procedures.

Regulation 60 of the *Work Health and Safety Regulations 2011* (the **WHS Regulations**) states that PCBUs must manage risks to health and safety relating to a MSD associated with a hazardous manual task, in accordance with Part 3.1 of the WHS Regulations.

## Further information

- > [Good Work Design](#)
- > [Physical hazards](#)
- > [Office Safety Tool](#)

Codes of Practice:

- > Commonwealth [Code of Practice Hazardous Manual Tasks](#)
- > Commonwealth [How to Manage Work Health and Safety Risks](#)
- > [Work Health and Safety Consultation, Cooperation and Coordination](#)
- > [Model Code of Practice: Managing psychosocial hazards at work](#)

WHS Act and Regulations:

- > *Work Health and Safety Act 2011* (WHS Act)
- > *Work Health and Safety Regulations 2011* (WHS Regulations)

#### Endnotes

- i <https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/musculoskeletal-conditions/contents/summary>
- ii World Health Organisation, *Musculoskeletal Health 2022*, Accessed 3 January 2024. [Musculoskeletal health \(who.int\)](#)
- iii <https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/musculoskeletal-conditions/contents/summary>
- iv Oakman, J., Clune, S., & Stuckey, R. (2019). *Work-related musculoskeletal disorders in Australia*. Canberra, ACT: Safe Work Australia. Retrieved from [Work-related Musculoskeletal Disorders in Australia \(safeworkaustralia.gov.au\)](#); and Trembearth, D., & Crawford, J. O. (2021). *Work-related musculoskeletal disorders*. In Australian Institute of Health & Safety (AIHS), *The Core Body of Knowledge for Generalist OHS Professionals*. Tullamarine, VIC: AIHS
- v Oakman, J., Kinsman, N., Macdonald, W., Bartram, T., Keegel, T., & Leka, S. (2016). *Workplace barriers to reducing the incidence of musculoskeletal and mental health disorders* (Research Report No. 106-0716-R02). La Trobe University.
- vi Fingerhut, M., Driscoll, T., Nelson, D. I., Concha-Barrientos, M., Punnett, L., Pruss-Ustin, A. et al. (2005). *Contribution of occupational risk factors to the global burden of disease - a summary of findings*. *Scandinavian Journal of Work Environment and Health Supplements*, 1, 58-61.
- vii Punnett, L., Wegman, D. (2004). *Work-related Musculoskeletal Disorders: The Epidemiologic Evidence and the Debate*. *Journal of Electromyography and Kinesiology*
- viii [The link between workplace stressors and physical injury: Summary report | Centre for Work Health and Safety \(nsw.gov.au\)](#)