

COVID-19 INFORMATION

WORKPLACE ERGONOMICS CONSIDERATIONS ARISING FROM A PANDEMIC

This document focuses on the importance of addressing changes and adaptations in the workplace to follow pandemic-specific measures, while considering ergonomics and human factors.

Key information

- Hazard assessments must be reviewed and updated to address the changes made in response to pandemic guidance and requirements.
- The hierarchy of controls must be followed when addressing hazards.

Hazard assessment and control

New processes and controls can introduce new hazards. As pandemic-specific measures and changes are introduced, the hazard assessment must be reviewed and updated. When doing a hazard assessment, the employer must involve affected workers, follow the hierarchy of controls and make sure all affected workers are aware of and understand the hazards and follow or use the controls.

Examples of workplace changes due to the pandemic include different job duties, workplace alterations including barriers and physical distancing, and new cleaning and disinfecting practices.

Detailed information about hazard assessments is available in [Hazard assessment and control: a handbook for Alberta employers and workers](#).

Ergonomics and human factors

Ergonomics is the study of interactions between people and their work: it aims to reduce hazards by adjusting the design of work to fit the abilities of the workers and improve workplace safety and

productivity. Ergonomics looks at physical interactions, such as lifting and handling materials and the risk of musculoskeletal injuries or disorders; and human factors, such as mental workload and decision making.

Ergonomics and human factors should be applied to address changing hazards and identify suitable controls.

Physical risk factors

With any changes in the workplace, there is a risk that other hazards may be introduced, including musculoskeletal injuries (MSIs). MSIs, also known as musculoskeletal disorders, is an umbrella term for a number of injuries and disorders of the muscles, tendons, ligaments, bones and nerves. The main physical risk factors for MSIs include:

Awkward postures. Posture refers to the position of part or all of the body, and an awkward posture occurs when the joints of the body are out of a neutral position due to reaching, twisting and bending.

Forceful exertions. Forceful exertions occur with high levels of muscular effort to lift, lower, push or pull, and may overload muscles, tendons and ligaments.

Repetition. Repetition is doing the same action over and over with very little change to the movement, allowing less time for the body to recover between activities resulting in fatigue, pain, injury and increased risk for incidents.

Repetitive work is more of a problem when it is combined with awkward body positions and forceful exertions. Repetitive movements can be reduced through automation of tasks and job rotation.

For more information on MSI risk factors, refer to [Ergonomics in the workplace: identifying and controlling MSI hazards](#).

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Addressing MSI risk factors

The following are some best practice strategies to help address potential MSI and human factors hazards.

Note that best practices continuously evolve and improve – make sure that you have current advice from expert sources in choosing what practices you follow.

Physical distancing and physical barriers

Physical distancing and physical barriers are effective pandemic controls. However, they can introduce awkward postures, result in increased repetitive tasks and reduce the ability to communicate verbally. To mitigate introduced hazards, consider:

- Using equipment to help workers transfer items between each other and to patrons and maintain the two metre (six feet) physical distance without having to reach.
- Using equipment to assist in transferring items beneath a barrier to minimize reaching.
- Providing adequate space to each side of physical barriers for easy access to transfer larger products across, without twisting and reaching, while still maintaining physical distancing.
- Ensuring signage and directional markers to communicate physical distancing are clear, consistent and easy to locate throughout the work site.
- Aiming to keep overall movement efficient when creating directional travel routes through the facility.
- Applying ergonomic principles when setting up computer work stations. An increase in virtual

meetings may increase the time spent at these stations.

- Designing work station rotation so that the types of physical movements required vary between stations, automating tasks where possible and ensuring work stations can be adjusted or rearranged to fit the worker.
- Using physical barrier design options that don't block verbal communication. For example staggering or overlapping barriers or using a microphone.

Business continuity

Unanticipated worker absences can result in increased workload for the remaining workforce. Workers covering for others may not be familiar or physically prepared to do the tasks assigned. Repetition and human risk factors may become an issue. Anticipate and plan for absenteeism by:

- Having an on-call coverage roster to balance increased workload.
- Cross-training workers so they are prepared to cover for absent coworkers.

Cleaning and disinfecting

Increased frequency of cleaning and disinfecting can result in repetition of movement and in risks from the use of hazardous chemicals.

Consider:

- Selecting the appropriate tools and equipment for cleaning and disinfecting tasks. Product weight, handle length and hand grip design will all impact safety and ease of use.
- Having workers share cleaning and disinfecting duties or alternating cleaning and disinfecting with other tasks to avoid repetitive movements.

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Contactless delivery, drive-through and curbside pick-up

Contactless delivery, drive-through and curbside pick-up may mean increased materials handling for workers, which can result in awkward postures and forceful exertions. Consider:

- Providing mechanical aids to assist in lifting and carrying, for example carts or dollies.
- Encouraging the option for patrons to pre-pay online to limit the in-person interaction for collecting payment. This can also apply for online completion of any forms, registrations, etc. to limit the transfer of paper documents.
- Using an extension tool to transfer payment machines and product to the customer without the worker having to bend or reach out. Consider the weight and design of the extension tool for safe grasping and use.

Personal protective equipment

When using personal protective equipment (PPE) consider the following:

- Respirators and other PPE, such as safety glasses and hearing protection, should be compatible so they don't interfere with the function of other equipment.
- Use the appropriate PPE for the job, ensuring proper fit and addressing any potential hazards from using the PPE.
- Where possible, reduce general noise around an area where verbal communication is needed, or use something to amplify the voice such as a microphone.
- Wearing PPE can make a person feel a lot warmer. Consider providing fans, cooling the work area and/or frequent water breaks.

Mental and physical health

It's important to be aware of both mental and physical challenges workers may face during a pandemic. Workers who have been off and then return to work sites may benefit from additional steps to:

- Settle and adjust to the changes in the workplace. Remind workers of available mental health supports and services and encourage them to use these services.
- Limit the potential for injuries, such as stretching, getting adequate sleep and being active, to recondition themselves.

Training

The many changes made to the workplace and work processes as well as extended absences from the work site due to the pandemic may require the employer to provide updated training to workers. Training may include:

- Providing a reorientation for workers returning to work after an extended time away on the existing safe work procedures.
- Training workers in changes in operational procedures, equipment and any new policies.
- Additional training addressing other ergonomics-related hazards and potential injuries.

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Contact us

OHS Contact Centre

Concerns, questions, reporting serious incidents

Anywhere in Alberta

- 1-866-415-8690

Edmonton & surrounding area

- 780-415-8690

Deaf or hearing impaired

- 1-800-232-7215 (Alberta)
- 780-427-9999 (Edmonton)

Notify OHS of health and safety concerns online

ohscomplaintsportal.labour.alberta.ca

Online incident reporting

Potentially serious, mine or mine site incidents

oir.labour.alberta.ca

OHS website

alberta.ca/ohs

For more information

Ergonomics in the workplace: Identifying and controlling MSI hazards (ERG045)

ohs-pubstore.labour.alberta.ca/erg045

Hazard assessment and control: A handbook for Alberta employers and workers (BP018)

ohs-pubstore.labour.alberta.ca/bp018

Psychological hazards: returning to the workplace during or following a pandemic (COVID19-18)

ohs-pubstore.labour.alberta.ca/covid19-18

Worker deconditioning following an absence from the workplace (COVID19-15)

ohs-pubstore.labour.alberta.ca/covid19-15

Working from home (COVID19-02)

ohs-pubstore.labour.alberta.ca/covid19-02

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