

Musculoskeletal Injuries (MSIs)

While at work, crane operators and their co-workers may carry out activities such as:

- Lifting or moving heavy objects by hand
- Stretching to reach out-of-the-way items
- Crawling to reach something at floor level
- Using a tool or controlling a machine while in an awkward position
- Repeating the same motions dozens of times an hour

These types of activities may involve overexertion or repetitive motion. This can lead to sprains, strains, or other musculoskeletal injuries (MSIs).

How MSIs Happen

MSIs can happen when a work activity requires too much of any of the following:

- Force (physical effort)
- Repetitive movements
- Awkward or static (unchanging) postures
- Contact stress (e.g., when a body part is in contact with a sharp or hard object)

Crane operators typically experience MSIs that affect the neck, shoulders, or lower back.

How to Reduce the Risk of MSIs

The risk of MSIs can be reduced if employers and workers do the following:

- Plan procedures to ensure that the proper tools, equipment, and number of workers are available for the tasks.

Reduce the amount of force and bending needed by:

- Minimizing the distance materials are moved

- Storing materials at or above hip height
- Reduce the handling of heavy loads by hand by:
 - Breaking them into smaller loads for easier transport
 - Getting help when lifting heavy or bulky objects
 - Using dollies, hoists, forklifts, etc.
 - Avoiding swinging or throwing heavy loads
- Avoid awkward or static postures by:
 - Using extended handles on tools to reduce the need for crawling when doing floor-level tasks
 - Placing the most frequently used items within a forearm's reach and less frequently used items within a comfortable arm's reach
 - Adjusting the seat height in the crane cab
 - Frequently changing positions between sitting and standing
- Reduce repetitive movements by:
 - Taking hourly breaks to stretch the shoulders, back, wrists, neck, and calves. Refer to BC Crane Safety's "Stretching exercises for crane operators" toolbox talk.
 - Taking short breaks between stages of strenuous jobs.
 - Taking part in a fitness program.
- Reduce contact stress by using tools with rubberized handles that don't dig into the hands.

OHS Regulation References: [4.46](#) to [4.53](#)

Project: Address:

Employer: Supervisor:

Date: Time: Shift:

Number in crew: Number attending:

Other safety concerns or suggestions:

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Record of those attending:

Name: (please print)	Signature:	Company:
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Manager's remarks:

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Manager: Supervisor:

(Signature)

(Signature)

For more information on health and safety requirements for crane operations in B.C., refer to the *Workers Compensation Act* and the OHS Regulation at worksafebc.com.