



# THINK SAFETY



Risk Control at UFG Insurance | [riskcontrol@unitedfiregroup.com](mailto:riskcontrol@unitedfiregroup.com)

## Industrial ergonomics tips



For industrial workers in the United States, overexertion and bodily reaction are top causes of injury and lost time according to OSHA and the Bureau of Labor Statistics. If injuries occur repeatedly, musculoskeletal disorders (MSDs) could develop.

**Engineering controls** designed for an industrial environment (see illustrations of common controls in this document) are preferred methods to mitigate or eliminate the risk of MSDs. Examples of engineering controls can include:

- Conveyor height adjustment
- Mechanical aids
- Scissor tables
- Tilt tables
- Workstation redesign

**Administrative controls** can also be used to mitigate MSD risk.

Examples include:

- Employee training
- Implementation of safe working procedures
- Mandatory breaks
- Job rotation
- Requiring two-person lifts for heavier objects

**Personal protective equipment (PPE)** is the last line of defense to help protect employees from MSDs. Some examples are:

- Anti-vibration gloves (e.g. proper fitting PPE)
- Ergonomic mats
- Padding (when direct contact with vibrating or sharp surfaces is a risk)

**A facility ergonomic assessment is highly recommended to identify risk factors and provide recommendations to mitigate those risks.**

Reach out to UFG Risk Control at [riskcontrol@unitedfiregroup.com](mailto:riskcontrol@unitedfiregroup.com) for assistance with an ergonomic assessment or recommendations to mitigate MSD risk.

Examples of MSDs include:

- Carpal tunnel (wrist/hand condition)
- Epicondylitis (elbow inflammation)
- Low back injuries
- Muscle strains
- Rotator cuff (shoulder) injuries
- Tendinitis (muscle tendon inflammation)

Common risk factors for the development of MSDs are:

- Awkward postures, such as bending, kneeling or twisting
- Forceful exertions, like heavy lifting
- Prolonged static positions (e.g. standing for shift)
- Repetitive motions or tasks
- Vibration



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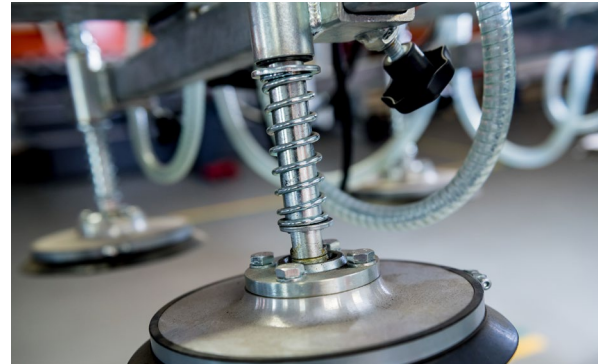
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### Common industrial engineering controls



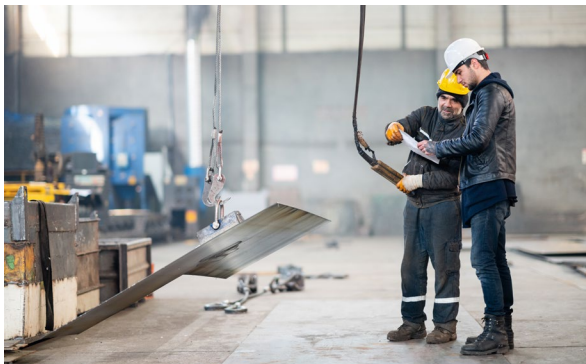
#### Electric or pneumatic-powered articulated jib hoist

- Mitigates risk from handling heavy, awkwardly shaped parts and components
- Lower back injury risk reduction



#### Vacuum lift attachment for lifting sheet metal

- Mitigates risk from handling awkwardly shaped raw materials.
- Lower back injury and laceration prevention/reduction (less handling of sharp edges)



#### Magnet attachment

- Mitigates risk from handling awkwardly shaped raw materials
- Moves ferrous sheet metal or components without chains, hooks or slings
- Lower back injury and laceration prevention/reduction



#### Adjustable hydraulic scissor and tilt-lift table

- Mitigates risk from bending, kneeling, overreaching, etc.
- Can be adjusted based on worker height
- Lower back injury and shoulder strain reduction

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