

# MSI Risk Factors

## Repetitive Motions

Repetitive motion occurs when the same task is performed over and over, or when different tasks are performed using the same muscles. Without sufficient rest, soft tissue damage can occur.

### Examples of repetitive motions:

- Working at the same station in a plant.
- Using hand or power tools for prolonged periods.
- Loading or unloading pallets.
- Handling or packing product.
- Reaching across a line to work with product.
- Typing or using a computer mouse for prolonged periods.
- Using a knife to repeatedly perform the same cut.
- Sweeping and mopping in custodial work.



Risk of injury increases as:

- The number or speed of actions increase.
- Muscles have to exert higher levels of force.
- A body part moves farther away from its neutral position.
- The frequency of task increases.
- The longer the task is done without a break.

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### Engineering controls

- Automate processes and tasks to eliminate repetitive manual work.
- Provide easily-adjustable work stations and equipment designed for the worker and task (like height-adjustable work tables, work platforms, or carts).
- Improve layout of work stations allowing tools and materials to be kept close to the body.
- Raise and tilt bins or use spring-loaded inserts.
- Place frequently used items at work level.
- Replace manual hand tools with well-designed power tools if a task requires frequent use of force.
- Schedule the flow of materials to avoid unnecessary repetitive motions or fast paced work.

### Administrative controls

- Rotate workers between various tasks that involve different movements and muscles.
- Pace work to reduce the number of repetitions per hour.
- Provide frequent microbreaks in addition to regular scheduled breaks so body tissues can recover.
- Reduce shift length or limit the amount of overtime.
- Develop and implement written safe work practices and procedures.
- Provide instructions in work practices and techniques that can ease task demands.



### What can you do?

- Take your regular scheduled breaks and frequent microbreaks.
- Pace your work.
- Change positions and tasks frequently. Switch hands or sides from time to time.
- Stretch affected body parts to relieve physical tension.
- Adjust your work area and position tools and materials close to you.
- Change the pattern of your work to avoid prolonged periods of the same motion.
- Follow safe work practices and procedures.
- Report any ergonomics-related concerns and signs or symptoms of MSI so the appropriate intervention can be implemented.

For additional information please contact:

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