

Manual Materials Handling Solutions to Control MSD Hazards in Manufacturing & Warehousing

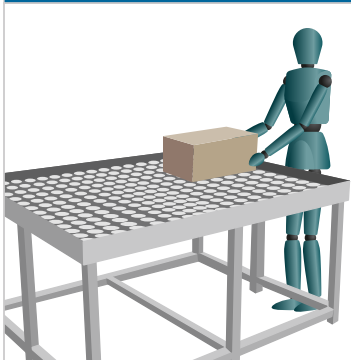
Manual materials handling includes lifting, lowering, carrying, pushing, pulling and gripping materials.

- These tasks are considered a major cause of back disorders in industry.
- In manufacturing, back injuries account for ~50% of all exertion/bodily reaction injuries (WSIB, 2020).

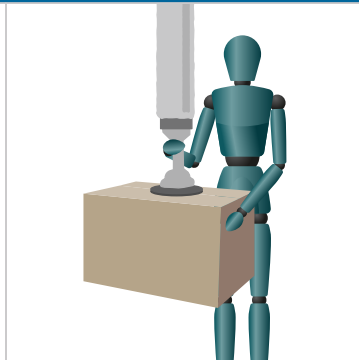
Eliminate or control musculoskeletal disorder (MSD) hazards associated with manual materials handling tasks by following the hierarchy of controls:

- Investigate implementing engineering controls, such as the solutions provided below, to change the way work is performed. These solutions can often improve worker productivity and product quality.
- Implement necessary administrative controls, such as training.

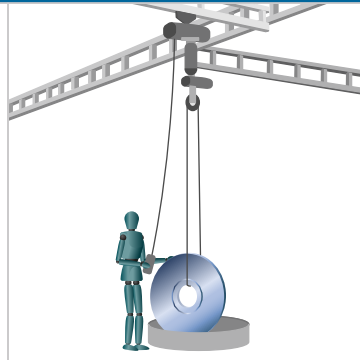
MSD Hazard: Weight lifted/lowered – Solutions to eliminate manual lifting/lowering



Roller/Transfer Table



Lift Assist Device

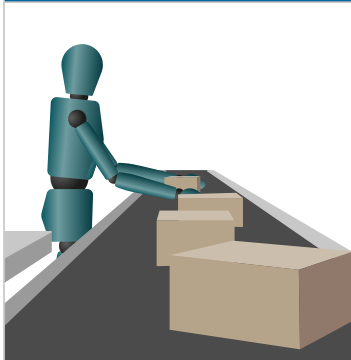


Overhead Crane/Hoist

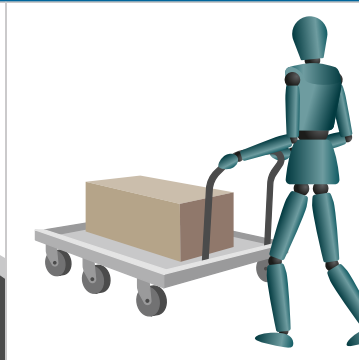


Portable Crane/Hoist

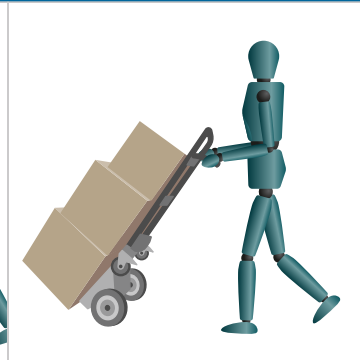
MSD Hazard: Weight carried – Solutions to eliminate carrying



Conveyor Systems



Carts/Dollies



Hand Trucks



Manual Pallet Truck

MSD Hazard: Weight Lifted/Lowered/Carried – Solutions to control handling

- Reduce the overall weight by splitting into smaller loads, if possible
- Avoid manually handling uneven, unbalanced loads
- Use both hands when handling objects/materials, if possible
- Create handles to improve grip on objects/materials

Train and Engage Workers

- Equipment Training: How to use equipment as intended to eliminate or control MSD hazards
- Work Methods Training: How to minimize exposure to MSD hazards (i.e., lifting and handling techniques, body positioning). Hazard specific training should be provided by qualified, knowledgeable person
- Hazard Reporting: How to identify and report MSD hazards in the workplace
- Control Hazards: Use a participative approach, which includes workers in the development and implementation of MSD hazard controls



For more info visit:
msdprevention.com

RESEARCH MEETING PRACTICE TO PREVENT MUSCULOSKELETAL DISORDERS (MSD)
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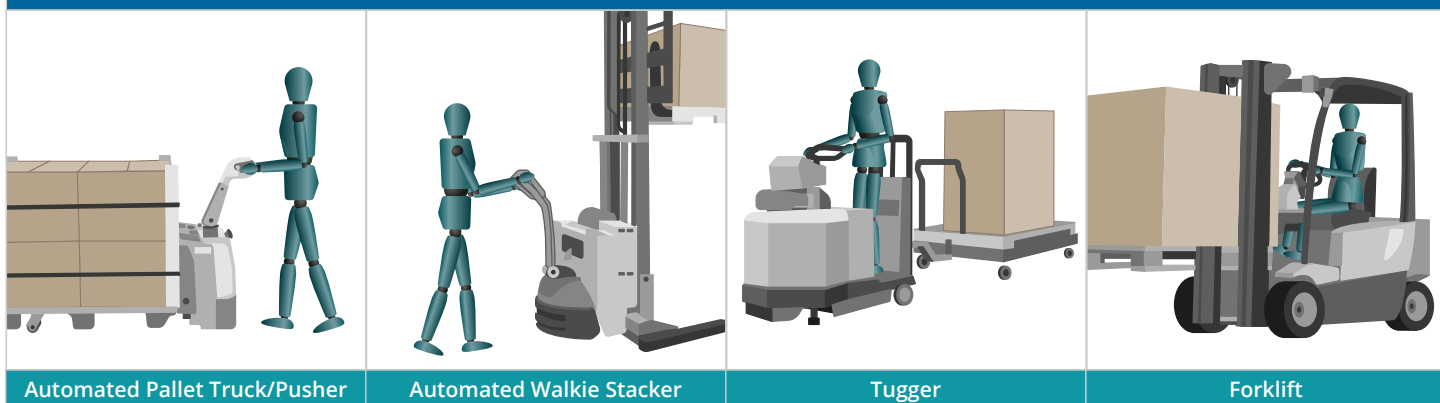


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Musculoskeletal Disorders

Work
shouldn't
hurt

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MSD Hazard: Push/Pull Force – Solutions to eliminate pushing/pulling



MSD Hazard: Push/Pull Force – Solutions to control push/pull force

- Implement regular equipment maintenance schedules
- Evaluate flooring material and floor maintenance for mobile equipment on wheels
- Use appropriate castor design for carts, depending on the application (i.e., diameter, material, swivel positioning, number of wheels, etc.)
- Use both hands when manually pushing or pulling, if possible

MSD Hazard: Awkward Back & Shoulder Postures to Lift/Lower

– Solutions to access materials using neutral postures (upright back position with the arms close to the body)



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