

Manual Material Handling Research Summary

Stats

In General Trucking, overexertion is the leading cause of work-related injuries for truck drivers, accounting for 24% of all truck driver claims. The primary type of activity associated with these types of incidents is manual material handling (MMH), including the lifting and carrying of boxes and containers, and the pushing and pulling of pallet jacks, carts and dollies. On average each year, over 200 truck drivers sustain overexertion injuries that cause them to miss time from work, with one in three resulting from MMH.

In Moving and Storage, overexertion is also the leading cause of work-related injuries for truck drivers, with over 60% resulting from MMH.

Manual Material Handling and Risk of Truck Driver Injury

MMH is the leading cause of truck driver overexertion injuries. The risk of injury is caused by the lifting, carrying, pushing, or pulling of objects, and is influenced by the weight, size and shape of objects, work postures used when handling objects, such as bending and twisting, and how often and for how long the activity is done.

Employer Responsibilities

- Identify MMH activities, complete risk assessments and implement appropriate preventative measures.
- Consult with staff, including truck drivers, when assessing risk of injury caused by MMH and developing preventative measures.
- Provide employees education, training and resources to protect themselves from MMH hazards.

Supervisor Responsibilities

Supervisors in General Trucking can have many job titles such as dispatcher, fleet supervisor, or lead hand. They are responsible for the health and safety of all employees under their direct supervision. Supervisors must:

- Know the MMH hazards and how employees can protect themselves.
- Ensure employees know the MMH hazards and how to protect themselves.
- Ensure employees have the training and resources to follow the MMH safe work procedures.
- Observe employees while they work and correct any unsafe work practices.

Supervisors should also encourage employees to report unsafe conditions and incidents, including near-misses.

Driver responsibilities

- Follow MMH safe work practices.
- Report any MMH hazards to the supervisor or employer.

- Refuse any MMH activity that they have reasonable cause to believe would create an undue hazard to the health and safety of themselves or others.
- Cooperate with the joint committee or health and safety representative.

Preventative Measures for Manual Material Handling Activities

Engineering control options on the road

- **Pallet jacks** - Are useful when mobile equipment cannot be used to load/unload goods from commercial trucks. This could be because the mobile equipment is too heavy for the trailer axels, or the site of delivery/pick-up does not have an appropriate loading bay.
- **Hand trucks** - When the number of items delivered to a specific site is not enough to use a pallet, a hand truck, which has 2 wheels, reduces the amount of load handled by the operator and allows for efficient movement of product.
- **Platform trucks** - Used to deliver items that are not on a pallet. Platform trucks provide the same benefits as hand trucks, but have at least 4 wheels.
- **Dollies** - Most often used to move single standard-shaped boxes or rectangle-shaped objects. Dollies do not have handles. They are simply a wooden frame attached to four wheels. The object is simply placed on top of the frame and rolled to where it needs to be.
- **Power tailgate** - The capabilities of this type of equipment allows for heavy material in the trailer to be moved to the ground level. In order to be effective, this type of control should be used in combination with other tools and training for drivers for safe use.

Administrative control options

- **Driver's aid** - Appoint an employee to assist drivers in making deliveries that require manual material handling.
- **Balanced workload** - Arrange the routes so that the workload is balanced with fleet drivers so that the risk of injury is not significant with any specific route. Fleet drivers should have a balanced workload that is within their capabilities.
- **Recovery time** - Provide enough recovery time following any tasks that are physically demanding.

References

1. WorkSafeBC. Industry Safety Information Centre. Retrieved from <https://www.worksafebc.com/>
2. Workers' Compensation Act. General Duties of Employers, Workers and Others (Division 3). Retrieved from <http://www.bclaws.ca/>
3. Centers for Disease Control and Prevention. Ergonomic Guidelines for Manual Material Handling. Retrieved from <https://www.cdc.gov/>

Source	Name and Link
WorkSafeBC	<ul style="list-style-type: none">• Back Talk: An Owner's Manual for Backs (Link)• Lifting in the Workplace (Link)• Lift/Lower Calculator (Link)• Push/Pull/Carry Calculator (Link)• What are MSIs? (Link)• Worksheet "A" MSI Risk Factor Identification (Link)• Worksheet "B" MSI Risk Factor Assessment (Link)
CCOHS	<ul style="list-style-type: none">• OSH Answers Fact Sheets (Link)
CDC	<ul style="list-style-type: none">• Ergonomic Guidelines for Manual Material Handling (Link)