

Manual Materials Handling FACT SHEET

Manual materials handling (MMH) is the most common cause of lower back pain and occupational fatigue in most work settings. About 75% of Canadians whose job includes MMH will suffer from pain due to back injury. Such injuries account for 1/3 of all lost time and compensation costs. If the hazards of MMH are not assessed and prevented, permanent disabilities from back injuries can result.

WHAT IS MMH?

Manual materials handling is any task involving the lifting or carrying of materials, loads, articles or things. Regulations respecting MMHs are covered under Ontario Regulation 851/90, Section 45 which states:

Materials, articles or things,

a) required to be lifted, carried or moved, shall be lifted, carried or moved in such a way and with such precautions and safeguards, including protective clothing, guards or other precautions as will ensure that the lifting, carrying or moving of the material, articles or things does not endanger the safety of any worker

b) shall be transported, placed or stored so that the material, articles or things:

(i) will not tip, collapse or fall

(ii) can be removed or withdrawn without endangering the safety of any worker

c) to be removed from a storage area, pile or rack, shall be removed in a manner that will not endanger the safety of any worker

Short term effects of MMH:

- Fatigue
- Accidental injuries (bruises, wounds, cuts)
- Reduced range of motion and flexibility

Long term effects of MMH:

- Chronic back pain due to:
 - o sprains and tears of ligaments in the spine
 - o cramps in the back muscles
 - o tears in the tendons of the in the back muscles
 - o damage to the vertebrae or discs

The correct way to lift a load – 1) Be sure the load is within your lifting capabilities; 2) position yourself close to the load; 3) feet shoulder width apart; 4) bend at the knees; 5) tighten abdomen; 6) keep back straight; 7) lift with your leg muscles while standing up



Contributing Factors:

- Weight, size, and shape of the load/object
- Range of lift, distance and duration of the carry
- Frequency of lifts, excessive twisting and bending
- Physical capacity (age, size, gender, previous injury)
- Poor workspace layout, temperature and humidity
- Poor lifting techniques

General Precautions for Lifting:

When handling medium to heavy loads:

- test the weight of the load - judge if it can be lifted securely; if not, make adjustments, or use a buddy
- grip the load securely
- protect hands against pinch points
- practice team lifting
- get help with awkward loads
- always use the mechanical devices and aids provided
- don't rush or cut corners; take frequent rests

Training reminders:

- know safe lifting techniques, like proper posture
- know to identify hazardous loads or tasks
- know how to select and use the proper mechanical aids or power equipment

More info on MMH:

- [Canadian Centre for Occupational Health and Safety](#)
- [Industrial Accident Prevention Association](#)

