

HAZARD ALERT

Patient and Resident Lifts

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Industries: All health care sectors that use patient and resident lifts including:

- Long-Term Care Facilities;
- Acute Care Medical Facilities and
- Residential Settings

Hazard Summary: Patient lift failure is a global problem. Hazard alerts have been issued by Health Canada¹, the Medicine and HealthCare Products Regulatory Agency in the United Kingdom² and the Australian Department of Justice and Attorney General³. In addition, Work Safe BC⁴ has also issued a hazard alert on this topic.

Risk of injury: HIGH

Typical Causes: malfunction or misuse of patient lifts

Hospitals, Long Term Care Facilities and even private homes use mechanical lifting systems to transfer or reposition their clients who have mobility issues. Since the need to lift clients poses an injury risk to the attendant, and the task cannot be eliminated, engineering solutions were created in the form of mechanical lifts.

There are many types of lifts. Some of the more common ones are listed below:

1. Wheeled hoist /Portable floor lift
2. Stationary Hoist/fixed lift
3. Ceiling track complete with motor.
4. Sit/stand lifting aid
5. Bath lifts

A diagram of most of these lifts can be viewed in the Canada Mortgage and Housing Document: *Accessible Housing by Design-Residential Hoists and Ceiling Lifts*. This document can be found at http://www.cmhc-schl.gc.ca/en/co/renoho/refash/refash_028.cfm.

While patient lifts provide an ergonomic solution to the risks associated with the manual handling of clients, they also introduce new workplace hazards. Mechanical lifting systems are a documented source of injuries to both clients and attendants. Over a 16 year period there were 11 deaths and 50 injuries documented in Canada "related to malfunction, failure or misuse of patient lifts in Canada"¹. This hazard alert focuses on the hazards to attendants (workers).

New hazards include the falling of suspended parts, dropped loads, equipment failure, structural failure and electric shocks. It must be noted that the risk of body strain is still present - if a mechanical lift should fail and an attendant tries to catch a falling client.

Preventive Measures:

The Nova Scotia *Occupational Safety General Regulations* (OSGR) outlines some of the legal requirements for the use of patient/resident/client lifts in workplaces as follows:

Section 26 of the OSGR outlines the requirement for adequate lifting equipment to be provided, as outlined below.

“Where the lifting or moving of a thing or person may be a hazard to the health or safety of a person at the workplace, an employer shall ensure that

(a) adequate and appropriate equipment for the lifting and moving is provided; and

(b) training and instruction as to the appropriate method of performing the lifting and moving is provided in accordance with the equipment manufacturer’s instructions, or, where there are no equipment manufacturer’s instructions, in accordance with adequate work methods and lifting and moving techniques.”⁵

According to section 84 of OSGR, a machine, that may be a hazard to a person in the workplace, is required to be “erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, maintained, repaired and dismantled in accordance with the manufacturer's specifications, or, where there are no manufacturer’s specifications, the specifications certified by an engineer.” Typically the manufacturer’s specifications will provide a frequency for **periodic inspections** and **pre-use inspections**. The periodic inspection requires documentation to demonstrate it has been completed. Pre-use inspections ensure that compatible parts are used and properly configured, and that load restrictions are not exceeded. They also identify any visible signs of damage to equipment that may lead to a failure.

Part of ensuring the machine is used in accordance with the manufacturers’ or an engineer’s specifications are to ensure the correct sling is used. The sling and lifting system must be appropriately matched.

Slings are an integral part of the lifting system. Injuries have occurred due to inappropriate laundering, improper sling size selection and use of incompatible slings and lifting system. To prevent these incidents, sling care must be performed according to the manufacturer’s specifications and the safe working load (SWL) must be clearly marked on both the lift and on the sling. Care must be taken to ensure the sling is compatible with the patient lift, the load limits of the lift and the patient’s weight.

Other steps that may not be clearly articulated in the manufacturers’ specifications, but are worthy of note include:

- Thorough inspections should include welds, bolts, nuts and strapping
- Ensure all removable parts are returned to the correct lifting system/track
- Create a system to ensure that defective equipment is clearly marked and taken out of service until replaced or repaired
- Confirm the inspection requirements for an electric actuator on floor lifts, if one is present. Wear of this component will not be detected with a visual inspection.

Further guidance may be obtained from CSA –Z10535 Hoists for the transfer of disabled persons- Requirements and test methods.

Additional requirements under Occupational Health and Safety legislation include section 28 (2) (b) of the *Occupational Health and Safety Act* where employers with twenty or more employees require a “provision for the preparation of written work procedures...to implement healthy and safe work practices.”⁶

Regardless of size, all workplaces can benefit from a code-of-practice, or safe work procedure for the operation, inspection and maintenance of mechanical lifting systems.

REFERENCES

1. Health Canada, Medical devices Alert 109, March 1997 as presented in CSA –Z10535 Hoists for the transfer of disabled persons-Requirements and test methods.

2. Medicines and Healthcare Products Regulatory Agency, UK, 2005

http://www.dhsspsni.gov.uk/mdea_ni_2007-34-patient_hoists_and_slings.pdf

3. Safety Alert: Patient Lifting Slings, Workplace Health and Safety, Queensland, Australia, 2011.

<http://www.deir.qld.gov.au/workplace/publications/alerts/patient-lifting-slings/index.htm>

4. Properly Install, inspect and Load Test Overhead Patient/Resident Track Lifts, Worksafe BC

http://www.worksafebc.com/publications/health_and_safety/bulletins/worksafe/assets/pdf/ws0202.pdf

5. Occupational Safety General Regulations

<http://www.gov.ns.ca/just/regulations/regs/ohsgensf.htm>

6. Occupational Health and Safety Act

http://nslegislature.ca/legc/statutes/occph_s.htm