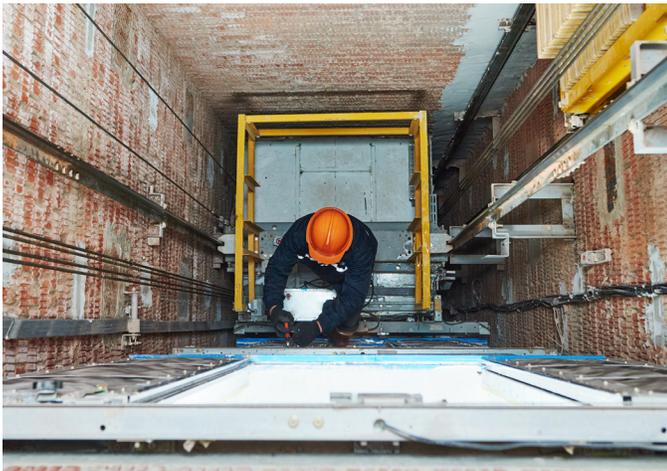


HEALTH & SAFETY ADVISORY

Asbestos in Elevator Components

Asbestos is a naturally occurring mineral that was used widely in a variety of building materials from the 1930s to the 1970s. Its strength, ability to withstand high temperatures, and resistance to many chemicals made it useful in hundreds of applications. It was especially useful in elevator components because it was resistant to the heat caused by friction and electricity.

Concerns over the health effects of asbestos led to a sharp decline in its use since the 1970s. Asbestos is now considered a “designated substance” under Ontario health and safety legislation. This means that its exposure is prohibited, restricted, or controlled. However, workers today may be exposed to asbestos when working in older buildings if they disturb asbestos-containing materials and release asbestos fibres into the air.



Health Effects

Inhaling asbestos fibres has been shown to cause diseases such as:

- Mesothelioma (cancer of the lining of the chest and/or abdomen)
- Lung cancer
- Asbestosis

These diseases do not respond well to current medical treatment and, as a result, are often fatal. The latency period between exposure and development of an asbestos-related disease can range between 15 and 50 years.

Did you know?

Asbestos-related illnesses such as mesothelioma are the number-one cause of occupational disease-related deaths for workers in the construction trades.

Locations

The components below are often encountered by elevator mechanics and may contain asbestos.

Component	Asbestos Exposure Hazard
Elevator brake pads	Brake pads may be used in two elevator applications: <ol style="list-style-type: none"> 1. Brake assist 2. Brake stopping. <p>WARNING: Brake pads may contain high levels of asbestos and the grinding action of brakes may release asbestos fibres into the air.</p>
Switch/limit switches	Asbestos paper may be used to line the inside of switches, which are fully encased in a metal housing.
Control panel components	Asbestos may be found in components such as electrical wiring insulation, resistor banks, or cement board.
Electrical wiring insulation	Wires may be insulated by asbestos textile.
Resistor banks	These are contained inside the control panel and may contain asbestos.
Cement board	These are generally contained inside the control panel and are used as fire-retardant backing boards to which various components are attached.
Sprayed-on fireproofing	Hoistways may be lined by spray-on fireproofing in older buildings.
Elevator entrance doors	Certain manufacturers may have installed asbestos between elevator doors.

Always assume these components contain asbestos, especially if they were installed before the mid-80s, and take precautions to prevent exposure to asbestos when working with them.

Asbestos-containing material (ACM) is classified as either **friable** or **non-friable**. Friable means that the material can be easily crumbled into dust and release asbestos fibres. Non-friable means that the asbestos fibres are held together with a binding agent such as cement, vinyl, or asphalt.

It is more difficult to release asbestos fibres from non-friable material unless workers are performing actions such as cutting, drilling, grinding, or sanding ACM. Insulation and sprayed-on fireproofing are considered friable ACM, so extra precautions should be taken if workers may be exposed to these components.

Protective Measures

1. Owner's Report

For demolition, alteration, or repair projects, the building owner must complete a report indicating whether ACM may be encountered. This report will contain the following:

- Drawings, plans, and specifications (as appropriate) showing the location of ACM
- Whether the ACM is friable or non-friable
- What type of asbestos it is (e.g., chrysotile) or whether it is to be treated as ACM

This report must be provided to all contractors bidding on the job and must be reviewed before contracts are finalized and work begins.

2. Training

Asbestos operations are classified according to the risk of exposure: Type 1 (low risk), Type 2 (medium risk), or Type 3 (high risk). Workers who perform any type of asbestos operation must receive training on:

- The hazards of asbestos exposure
- The use of a respirator (including its purpose, inspection, maintenance, fitting, cleaning, disinfecting, and limitations)
- Safe work procedures and personal hygiene (including the use, cleaning, and disposal of protective clothing).

Every worker and supervisor involved in a Type 3 (high risk) operation must also successfully complete the **Asbestos Abatement Worker** or **Asbestos Abatement Supervisor** Training Program (approved by the Ministry of Training, Colleges and Universities (MTCU)).

3. Safe Work Procedures

Workers must follow specific procedures based on the type of asbestos operation being performed. These procedures are outlined in O. Reg. 278/05: *Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*.



IHSA Resources

In addition to elevator components, asbestos can be found in many common building materials. For more information, refer to these IHSA products, which are available to download for free at ihsa.ca

- *Asbestos: Controls for Construction, Renovation, and Demolition* (DS037)
- *Owners' Duties: Designated Substances on Construction Projects* (W130) (also available in French (W130F))
- *Occupational Health Risks: Elevator and Escalator Trades* (W107)
- *Health & Safety Advisory: Gaskets, Boilers, and Asbestos* (W157)
- *Health & Safety Advisory: Heat Stress and Type 3 Asbestos Operations* (W152)
- *Construction Health and Safety Manual* (M029) (Ch 34: Asbestos)

The following asbestos-related training programs are also offered by IHSA:

- Asbestos Abatement Worker
- Asbestos Abatement Supervisor
- Asbestos Work in Construction Hazard Awareness

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