



Take your ladder safety to **NEW HEIGHTS**

Sooner or later, we all need a ladder. Some workers use them only occasionally, but others have to climb or work from a ladder many times during the day. In either case, ladders can be dangerous, and the misuse of ladders causes many injuries and deaths every year.

Using ladders the wrong way can result in long-term musculoskeletal disorders, contact with live wires, or falls. The consequences can range from minor mishaps to death. To reduce injuries and incidents, IHSA recommends you establish a proper ladder safety program that includes training and hazard awareness.

Types of ladders

Ladders are rated by the Canadian Standards Association; its standard for portable ladders is CSA Z11. Here are the five classifications for ladders.

| Duty Rating | Intended Use | Ladder Type | Working Load (kg/lbs) |
|------------------|-------------------------|-------------|-----------------------|
| Special Duty | Construction/Industrial | IAA | 170/375 |
| Extra Heavy Duty | Construction/Industrial | IA | 136/300 |
| Heavy Duty | Construction/Industrial | I | 113/250 |
| Medium Duty | Tradesman/Farm | 2 | 102/225 |
| Light Duty | Household | 3 | 91/200 |

Most ladders are made of wood, fibreglass, or aluminum. Ladders also come in a variety of designs, each intended for a particular use and set-up. The different designs are not interchangeable, and the wrong one should not be used simply because no other ladders are available.

Wooden ladders

A wooden ladder, when it is dry, is not a good conductor of electricity. But wood is very susceptible to drying and splitting with age. Therefore, wooden ladders need some type of protective finish. A clear finish should be used so the condition of the ladder can be seen. Paint can hide various defects.

Fibreglass ladders

Ladders made of fibreglass are recommended for all electrical work. However, if they are left outside, for example, on a service vehicle, the fibreglass may suffer UV damage from sunlight, which will need to be repaired. Inspect these ladders according to the manufacturer's recommendations.

Aluminum ladders

Aluminum ladders conduct electricity. Never use aluminum ladders where contact with energized equipment is possible.

What the law says

Employers are required by *Ontario's Occupational Health and Safety Act* to take every reasonable precaution to protect their workers from hazards, including those related to ladders. Employers must provide information and instruction, and must ensure that workers use the ladder properly and that the ladder is designed, built, and maintained so as not to endanger a worker. They must also make sure that it can withstand any load it may



be subjected to. Employers, supervisors, and workers can be prosecuted for not complying with the law.

Training

An important part of a ladder safety program is training. Proper training is required by the *Occupational Health and Safety Act* and needs to take place before any ladder is used. However, one-time training is not enough. IHSA recommends that all workplaces establish a re-training program, requiring trained workers and supervisors to update their knowledge within a length of time established by the employer.

Transporting ladders

When a ladder is being transported on a roof rack, it must be fastened securely. Use approved tie-downs that will hold it firmly in place. This will prevent damage from road shock and stop the ladder from falling off the vehicle.

Ladder inspection

It is important when inspecting ladders to look beyond the obvious. The following procedures will help to reveal problem areas. In addition, it must be noted that any repair to a ladder must be done by the manufacturer. That will ensure that the strength of the ladder continues to meet the CSA standard.

Stepladder inspection

- **Copolymer top**—Inspect for cracks or dents; make sure that all rivets, nuts, and bolts are present and tight.
- **Pail tray**—Make sure it moves freely, and all fasteners are present and tight.
- **Spreader arms**—Make sure they move freely and lock tightly, and all fasteners are present and tight.
- **All steps, horizontal braces, and step braces**—Make sure they are free of damage, and all fasteners are present and tight.
- **Front and rear side rails**—Inspect for cracks, dents, bends, or any other blemishes.
- **Safety feet**—Inspect for worn rubber pads and loose rivets, nuts, or bolts.

Extension ladder inspection

- **Slide guides**—Inspect for cracks, chips, or wear. Make sure that all fasteners are present and tight.
- **Rope**—Make sure it is tight and not frayed or knotted, and that the pulley is free from wear and firmly fastened.
- **Base and fly sections**—Make sure they are straight and free from damage and warp.
- **All rungs**—Inspect for dents and cracks; make sure they are tight and do not rotate.
- **Safety feet**—Inspect for worn rubber pads and loose rivets, nuts, and bolts.
- **End caps**—They should all be tight and free from cracks, chips, and wear.
- **Side rails of base and fly**—Make sure there are no dents, cracks, or other blemishes.
- **Gravity locks**—Make sure they pivot freely, that fingers are intact and free from wear, and that all fasteners are present and tight.

Resources

IHSA has produced a document called *Ladder Use in Construction Guideline*. It has been prepared to help workplace parties understand their obligations under the *Occupational Health and Safety Act* and its regulations. It is available for viewing at ihsa.ca/news_events.

Employers and supervisors should refer to this document when setting policies for ladder use.

