

Extension ladders

Explain dangers

Extension ladders can be dangerous tools. Workers have been killed and injured from falls and powerline contact.

Identify controls

- Choose the right ladder for the job. On a construction project, it must meet the requirements of a Grade 1, Grade 1A, or Grade 1AA ladder under CSA Z11-12: *Portable ladders* and sections 79 to 82 of O. Reg. 213/91. Also, it must be long enough to:
 - Be set up at a safe angle (see image)
 - Extend 90 cm (3 ft.) beyond the top landing
- A two-section extension ladder should be no longer than 15 m (50 ft.); a three-section ladder should be no longer than 20 m (66 ft.).
- Check the ladder for damage or defects before you set it up, after it has been used somewhere else by other workers, and after it has been left somewhere for a long time.
 - Defects can include damage to the labels and rungs, missing hardware, the presence of oil and grease, areas that have been painted over, alterations, and unsafe repairs.
- Set the ladder on a firm, level base. If the base is made of soft, loose, or wet material, clear it away or stand the ladder on a mudsill.
- Never erect extension ladders on boxes, carts, tables, or other unstable objects. Never stand them up against flexible or movable surfaces.
- Set the ladder up at a safe angle—one foot out for every three or four feet up, depending on length.
- When the ladder is set up, there should be a clear space of at least 15 cm (6 in.) behind each rung for the front of your foot to fit.
- When the ladder is fully extended, sections must overlap at least 90 cm (3 ft.).
- Stand no higher than the fourth rung from the top.

- Do not carry tools, equipment, or material in your hands while climbing. Use a hoist line or gin wheel for lifting and lowering.
- Tie off or otherwise secure the top and bottom of the ladder. Keep areas at the top and bottom clear of debris, scrap material, and other obstructions.
- Clean mud, snow, and other slippery substances off your boots before climbing.
- When climbing up or down, always face the ladder and maintain 3-point contact.
- Be very careful when erecting extension ladders near live overhead powerlines. Never use metal or metal-reinforced ladders near electrical wires or equipment.
- Wherever possible, use extension ladders only for access—not as work platforms.
- When you must work from a ladder more than 3 m (10 ft.) off the ground, wear a safety harness and tie off to a well-anchored lifeline or other support—not to the ladder.

Demonstrate

Using an extension ladder, demonstrate the controls to the crew as you talk. Show how to set up a ladder at a proper angle and secure the ladder as per the regulations and the image below.

