

## **Here are some tips on how to avoid common construction site falls:**

### **Slips and trips**

Slips usually happen when there is too little traction or friction between the footwear and the walking surface. Trips occur when a person's foot strikes or gets snag on an object causing the individual to lose balance and eventually fall.

- Make sure work area and walkways are clear of obstacles
- Mark spill and wet areas and immediately clean up oily surfaces, spills or weather hazards
- Use industry recommended mats where appropriate
- Anchor loose rugs or mats
- Keep walkways and work area well lit
- Make sure workers wear regulation slip resistant footwear appropriate for the job and work area

### **Stairways**

The vast majority of stairway falls result from loss of balance. A most common contributing factor is the absence of or neglecting to use handrails.

- Optimal stairs construction to prevent falls would involve a 30 to 35 degree slope, 80 to 90-cm handrail height, and 12.5 to 20-cm riser height, minimum 56-cm step width and 17 to 24-cm tread depth
- Glue on coarse material such as sandpaper or secure traction mats to steps
- Glue reflective and highly visible tape to riser
- Handrails should provide secure and firm grasp. Ideal diameter is 4 to 5 cm
- Install guardrails 40 cm above the surface of the stairs to prevent falls off the side
- Illuminate area to a maximum of 50 lux

## **Holes and Gaps**

Make sure surface holes and gaps are securely covered or planked over with material that will sustain the weight of individuals or equipment passing over the surface. Illuminate and provide visible signs that warn of the gap or hole, or direct people to an alternate route.

## **Roofs**

Installing permanent rooftop anchors or temporary safety rails for workers to hold on to, secure harness on or arrest their fall can prevent injuries and death.

## **Guardrails**

For elevated areas, guardrails are the first line of defense in fall prevention. These should be installed along the open sides of an area where a worker may fall 2.4 meters or more into water, operating machinery or hazardous substance. Guardrails are available in wood, wood-slat, wire rope or wire mesh. Guardrails for protection are typically found on floors and floor openings, balconies, rooftops, scaffolds and platforms, runways and ramps, and bridge surfaces.

## **Fall arrests, SRLs and travel restraints**

Fall arrest system includes a CSA-certified full body harness, lanyard with locking snap hooks or D-clips, rope grab, lifeline and lifeline anchor. This must be worn when the worker is on a rolling scaffold that is being moved or when the worker is boarding or getting off a suspended platform.

Travel restraint systems prevent falls by restraining a worker from getting too close to an unprotected edge. The system consists of a CSA-certified safety belt of full body harness, lanyard, rope grab, lifeline and lifeline anchor.

Self-retracting lines (SRL) are designed to allow workers to move about to handle and install material. It is designed to arrest a fall but not restrain travel. The SRL allows a worker to move along the full length of the line but the system stops and locks at any sudden pull.

## **Aerial lifts**

These include boom-supported aerial platforms such as cherry pickers and bucket trucks.

- Ensure workers are properly trained to operate the lift
- Maintain equipment in accordance with manufacturer's instructions
- Don't let workers position themselves between overhead hazards. Maintain at least a 3-meter distance from overhead hazards
- Always use harnesses
- Set brakes and use wheel chucks when on an incline

### **Scaffolds**

- Inspect scaffolds and parts daily before each shift
- Make sure power lines near scaffolds are de-energized and at least 3 meters away
- Check footings. Do not use cross braces for ladder

### **Ladders**

- Avoid electrical hazards
- Inspect ladder for damages and stability before use
- Maintain a 3-point (two hands and one foot) contact with the ladder and keep body close to the ladder
- Ladder must be free of slippery material
- Don't use a self-supporting ladder as a single ladder or in a partially close position
- An extension or straight ladder must stand at least 3 feet above the point of support
- Don't stand on the three top rungs of a straight or extension ladder