# Taking the edge off falling objects

You see them all the time and don't take notice. Small tools and pieces of material lying around the jobsite seem harmless enough. But if those items fall from a high level, they can seriously injure or even kill someone below.

For IHSA member firms, struck-by injuries caused by falling objects account for over 400 lost-time injuries (LTIs) each year. It's not just the frequency of these injuries that's the problem—it's also the severity. Workers who are injured by falling objects suffer not only bruises, strains, and sprains but also critical injuries such as fractures and concussions.

One of the best ways to reduce these types of injuries is to develop a falling-object prevention plan. Part of this plan would involve inspecting the jobsite for falling-object hazards and putting physical and procedural controls in place to prevent the hazards.

## Physical controls

Physical controls physically stop an object from falling (or from falling very far).

- Install toeboards on all guardrails to stop objects from falling down to the level below. Do not pile tools, equipment, or materials higher than the top edge of the toeboard (3½ inches) unless you use panelling or screening to stop small objects from falling through the openings between rails.

- If working on open grating, place non-slip plywood or a similar product on top of the grating to prevent small objects from falling through it.

- Use tool lanyards and tethers that attach tools directly to the worker's harness or tool belt.

- Use a cart with sides when moving equipment, tools, or material. The cart should be the correct size for what you're moving. If anything extends over the sides of the cart, secure it and make sure the cart is stable.

- Use barricades to set up exclusion zones below the work area and hoisting area and put up signs to indicate entry is prohibited.

- If barricades are not practical, use overhead protective structures that meet legislative requirements (O. Reg. 213/91, s. 64 (3)).

## Procedural controls

Procedural controls involve changing the way you work so that objects can't fall.

- When lifting, make sure the load is balanced and secured. Check for small or loose pieces before you lift. If placing a load on a scaffold or platform, make sure the work area has properly built guardrails.

- Always use proper hoisting and rigging procedures. Never lift, lower, or swing a load over anyone's head. Use barricades to block off areas where loads are being lifted or lowered. Use a signaller if the operator's view is impeded in any way. Make sure the equipment is in good condition.

- Keep tools and other materials away from edges, railings, and other elevated surfaces. Stack materials on a flat surface and secure them.

- Be aware of your surroundings and be careful not to accidentally knock or hit something off the level you are working on down to the level below.

- Place materials and equipment at least six feet away from an edge. If working near an opening, cover it or arrange materials so that they can't roll or slide towards the opening.

Using a checklist like the one on the next page, inspect your site for falling-object hazards. For more info on falling objects, visit **ihsa.ca/safetytalks** and download our safety talk on falling-object hazards.

# Falling-Object Inspection Checklist

| Project | | Date | |
|---|---|---|---|
| Areas Inspected | | | |
| | | | |
| | | | |
| Inspected by | | | |

| Inspection Items | |
|---|---|
| **1. Job Safety Analysis** | ❑ JSA has been developed and reviewed. |
| **2. Exclusion Zones** | **Barricades**<br>❑ There is an accessible area below the work.<br>❑ Barricades are in place.<br>❑ Signs are in place to explain the reason for the barricades.<br>❑ The exclusion zone is large enough.<br><br>**Overhead Protective Structures**<br>❑ There is an accessible area below the work.<br>❑ The area must remain accessible, so it requires overhead protection instead of barricades.<br>❑ Overhead protective structures are installed correctly. |
| **3. Guardrails** | ❑ Toeboards are installed.<br>❑ There are no gaps between the toeboards and the work surface.<br>❑ There are no gaps between adjoining toeboards.<br>❑ Toeboards are at least 3½ inches high (89 mm).<br>❑ Guardrails have a mid-rail and a top rail. |
| **4. Opening Covers** | ❑ Openings near the work area that require covers have been identified.<br>❑ Existing covers are in place.<br>❑ Existing covers are properly secured and marked. |
| **5. Scaffolding** | ❑ All debris and unnecessary materials around the scaffold are removed regularly.<br>❑ Proper guardrails and toeboards are installed. |
| **6. Hoisting and Rigging** | ❑ An exclusion zone has been established and barricades installed.<br>❑ Warning signs have been posted where needed.<br>❑ No workers are under the path of the overhead load.<br>❑ Loads are properly secured.<br>❑ Slings and other hardware are in good condition.<br>❑ Tag lines are used to control loads.<br>❑ Proper lifting containers are used.<br>❑ Signallers are used when required. |
| **7. Housekeeping** | ❑ Material is properly secured.<br>❑ Material and equipment is kept at least 6 feet away from the edge.<br>❑ Debris is cleaned up and removed regularly.<br>❑ No tools or equipment is stored near edges or on railings or elevated surfaces.<br>❑ Material is stacked properly to prevent tipping.<br>❑ Material is stored on level surfaces. |
| **8. Tools and Equipment** | ❑ Hand tools are secured in work belts.<br>❑ Carts are the correct size for the material being moved.<br>❑ Carts are stable and have sides.<br>❑ Anything extending over the sides of the cart is secured. |