Explain dangers

Without proper guarding, workers face exposure to falls when working around floor and roof openings. Avoiding such hazards may seem like common sense, but a moment of distraction around an uncovered opening can end in disaster.

• In March 2010, a worker was killed installing formwork for a concrete curb around an opening. The worker fell 32 feet through the floor.
• In May 2010, a worker was killed after falling about 17 feet through a roof opening.
• In June 2010, a worker was installing a drywall fire barrier in a back-split style duplex. The worker fell though an opening into the basement and died.

Identify controls

Installing guardrails is the ideal solution. In situations where guardrails can’t be installed, covers are the next best option. According to the Construction Regulation these covers must

• completely cover the opening
• be securely fastened
• be labelled as a covering for an opening
• be made from material that can support any load that may be encountered on the worksite.

Always use another means of fall protection when installing, removing or working near an unprotected opening.

The labels on opening covers need to stand out on a busy worksite. Use bright paint to create a warning sign on the cover that says something such as—DANGER! OPENING—DO NOT REMOVE! DO NOT LOAD!

Always fasten the cover securely to prevent workers from removing it and falling through the opening. Where permanent covers or hatches are installed, they should be kept closed at all times except when they are being used for access.

Demonstrate

After you talk about floor and roof openings, take a look around the job site. If there is an available roof or floor opening, install a cover and review how this complies with legislation.

If you can’t install a floor or roof covering, then talk about what everyone has seen on jobsites in the past and what types of openings they’ve encountered.

Has anyone seen an incident involving an uncovered opening? How could it have been prevented?
On the cover...
The membership of the Infrastructure Health & Safety Association includes six major industries: construction, transportation, electrical & utilities, aggregates, natural gas pipelines, and ready-mix concrete.

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2-Minute News is a unique monthly bulletin on health and safety—you can read the info on your industry in two minutes or less! Each issue contains material for a safety talk.

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Keep on top of your responsibilities. Subscribe by sending an email to feedback@ihsa.ca. Archives are posted on www.ihsa.ca.
34 workers died from injury last year in the workplaces served by IHSA. In 2009 it was 29.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of deaths from injury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Construction</td>
<td>16</td>
</tr>
<tr>
<td>Transportation</td>
<td>16</td>
</tr>
<tr>
<td>Electrical &amp; Utilities</td>
<td>2</td>
</tr>
</tbody>
</table>

Data from the Workplace Safety & Insurance Board

The figures above refer to deaths from injury in WSIB-registered companies served by IHSA. There is, however, another data source. The Ministry of Labour keeps track of all deaths from injury that occur on construction projects in Ontario regardless of whether or not the worker was covered by WSIB insurance. The Ministry of Labour’s figures for all deaths from injury on construction projects are as follows:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of deaths from injury</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Construction</td>
<td>24</td>
</tr>
</tbody>
</table>

In construction: Falls from heights continue to cause over 50% of deaths from injury. The next major cause was being struck by material, equipment, or a collapsing structure.

In transportation: 11 of the 16 deaths were motor-vehicle or transportation-related incidents.

In electrical & utilities: One of the workers was killed due to a struck-by incident, and the other death involved accidental contact with an electrical conductor.

Preventing deaths requires preventing injuries. Focus on fall hazards, safe driving, struck-by hazards from moving material and equipment, and electrical contact.

What can your company do to ensure that no more workers die this year in Ontario?
Whether it’s on a construction site, at a loading dock, in a lumber yard, or in a building supply warehouse, the majority of workers who suffer critical injuries either fall or get struck by something (such as a vehicle, a piece of heavy equipment, or a tool).

In most cases, either falling or being struck by something leads to that unmistakable sound of cracking bone—fractures to arms, legs, heads, hips, and backs.

Not only are fractures a leading type of injury, they are also one of the most expensive types of workplace insurance claims.

According to statistics from the Workplace Safety and Insurance Board, truck drivers and loading-dock workers, homebuilders, and lumber-yard workers suffer the bulk of fractures experienced in IHSA’s industries.

Turn the page to find out how to reduce the risk of fractures on construction sites. In the next issue of Health & Safety Magazine, look for tips on reducing fractures in the trucking industry. The issue after that will focus on lumber yards and building supply yards.
Eliminate falls

In Ontario construction, falls cause the majority of fractures. When workers fall and survive, they almost always have at least one broken bone.

The Construction Regulation (Section 26) specifies when you need to use some form of fall protection. To be safe, just remember this: wherever there is an open edge and a risk of falling, use fall protection.

Guardrails and floor opening covers

The best forms of fall protection are guardrails and opening covers because they protect everyone in the work area.

This is what a well-built wooden guardrail looks like. It must be able to withstand anything that could come up against it.

If there’s a floor opening and you can’t build a guardrail around it, use a strong opening cover. Secure it (e.g., nail it down) and then clearly mark it with a bright colour: DANGER. OPENING COVER. DO NOT REMOVE! DO NOT LOAD!

Personal fall protection

When you can’t use guardrails or opening covers, you must use a travel-restraint or fall-arrest system. Go for travel-restraint first because, like guardrails, it will actually prevent you from falling in the first place. If that’s not possible, use a fall-arrest system so that if you fall, you won’t hit the ground.

Preventing fractures

in construction

Ladders

• Tie off the top and bottom of the ladder rather than have someone hold it.
• Always make sure your boots are dry and that the grips aren’t worn out.
• Maintain 3-point contact at all times: one hand and two feet on the ladder or two hands and one foot.
• Don’t carry anything while you climb up or down.
• Keep your body between the side rails of the ladder. Don’t lean over to one side or the other. The ladder can tip if you reach out too far.
• Make sure your ladder is set up at a safe angle.
• Inspect ladders before each use. If it’s defective, take it out of circulation. Get it repaired, or replace it.

Don’t get hit

After falls, getting hit by something is the most common way to fracture a bone. To protect your workers from getting struck by vehicles or heavy equipment,
• plan a drive-through jobsite
• use trained signallers if you can’t avoid backing up
• put up barriers to keep walkways separate from the paths that trucks and other equipment use
• make sure everyone knows where driver blind spots are and how to stay out of them.

To prevent getting struck by objects,
• always secure loads when using cranes
• prevent other workers from accessing hoisting and unloading areas
• never lift a load over a work area
• before removing the straps or chains to unload a truck, make sure the load didn’t shift
• stack unloaded material on level ground in a stable pile (e.g., use blocking)
• don’t stack material too high
• avoid storing material near the edge of a roof
• if you have to store material on a roof or elevator, secure it so that wind can’t blow it off
• use guardrails—they prevent objects from falling the same way they prevent people from falling.

Use this information to give a few safety talks to your workers. For more information on preventing falls and struck-by injuries, visit www.ihsa.ca
We at IHSA understand where you’re coming from. Some of us were business owners like you. We want to give you some tips that won’t take much time, but can make you both safer and more competitive.

It turns out that taking some steps to prevent a workplace tragedy is not only the right thing to do ethically, it’s the smart thing to do financially.

Give us five minutes, turn the page, and see why safety should matter to you.
You've sacrificed a lot to build your business—financially and personally. Protect your investment.

Profits and losses

Imagine one of your employees stumbles on some garbage, twists a knee and can't work for a few days. We calculated that the immediate, direct costs to you would be about $3,800, and that doesn't include any WSIB surcharge, Ministry of Labour fine, penalties for production delays, or accommodation of the injured worker after returning to the job.

If you're working at a 10% profit margin, you'd have to do $38,000 worth of business just to recoup your direct costs of this relatively minor injury.

Now, imagine if on top of that, you're slapped with a $50,000 Ministry of Labour fine (the maximum fine is actually $500,000). You'd have to do over half a million dollars of business just to recoup that amount (while not making a profit). How long would that take? Would it have been worth a few minutes to clean up the work area?

Winning the big bids

Are you looking to land some big contracts? If so, then increasingly, clients are going to ask you for evidence of a good safety record. They may also ask to see your health and safety policy and program. Prepare your business for a more safety-conscious market.

Quality work is safe work

Doing the job safely can improve quality and productivity. For example, cutting tile using a water saw means greater accuracy and increased volume of work compared to conventional methods that create a dust hazard.

Company fined!

In March 2011, a company was fined $65,000 for violations of the Occupational Health and Safety Act. During a routine inspection, a Ministry of Labour inspector noticed that entranceways to and from the work area were obstructed and issued an order to keep the routes clear. When the inspector visited the site the next day, the entranceways were still not clear. The company was fined a total of $65,000 on two counts, even though no one was injured.

Quality work is safe work

Keeping workers safe frees them to remain focused on the job—rather than being distracted because they have to watch out for hazards.

You'll find that the same bad attitudes that lead to safety problems (recklessness, carelessness, etc.) also lead to quality problems. Professionals take their job, and their safety, seriously.

Business with a heart

So far we've given some “business” arguments for health and safety, but they're not the whole story. There's an even more convincing argument: health and safety matters because human lives matter.

If you're like many independent business owners, you've known your workers for years. They're probably like a second family to you—if they aren't actually your sons or daughters. That's reason enough to make health and safety part of your business. The next two pages show you how.
1. **Know the hazards**

You can’t prevent injuries and illness unless you know what can go wrong.

Beware of the most common hazards. Make sure your workers know what they are. For the industries served by IHSA, the top three hazards overall are:

- musculoskeletal hazards (e.g., repetitive strain, improper lifting)
- struck-by hazards (e.g., backing vehicles, misuse of tools)
- falls (e.g., working without guardrails, floor openings, not tying off).

Figure out how injuries or illnesses are most likely to happen in your current jobs, and prevent these problems. The best way to do this is to perform a “job safety analysis” for each activity:

1. Write down the steps of the job, as well as surrounding conditions that matter for safety.
2. Identify the hazards associated with each step or the surrounding conditions.
3. Determine controls for each hazard. Put the controls in place.
4. Inform your workers about hazards and controls.

2. **Know the rules**

As a business owner and employer, you have legal responsibilities. Know the law and regulations that apply to you and your industry. It’s either Ontario’s Occupational Health and Safety Act (and relevant regulations) for provincially regulated businesses, or the Canada Labour Code for federally regulated businesses.

- IHSA can help you find a copy of the law relevant to you, either on paper or online. Visit www.ihsa.ca

3. **Get trained and provide training**

- Ensure that you and your workers have the health and safety training you need for the work you do.
- Generic training ensures workers have the general knowledge and understanding to identify risks in the workplace. IHSA’s WHMIS program is an example. Generic training usually requires follow-up training by the employer on workplace-specific applications.
- Workplace-specific training may involve education on specific methods, machinery, tools, or applications related to a person’s work. It is often required for situations where dangerous circumstances can arise, such as trenching, confined spaces, working at heights, or traffic control.
- New worker orientation and training is critical because new workers have a greater chance of injury. “New worker” doesn’t mean only young workers. It can mean a worker who is new to a particular job or jobsite.

4. **Ensure “competent supervision”**

Employers are obligated to hire competent supervisors, but if your business is small, you may be the supervisor.

Either you or the supervisor must

- inspect the workplace regularly, document what you find, and ensure that hazards are being controlled
- investigate workplace injuries or illness so they don’t happen again
- enforce company rules as well as health and safety laws and regulations.
5. **Talk about safety with your employees**

Communicate the importance of safety using

- 5-minute safety talks. These are quick briefings before a day’s work. Think ahead about what you and your employees will be doing, and cover off the hazards and controls. IHSA offers over 80 free safety talks on [www.ihsa.ca](http://www.ihsa.ca)

- posters, signs, and articles (from this magazine, or from our free monthly email bulletin)—post them where your workers gather

- written communications when you’re setting out policy or when specific procedures must be followed

- informal discussions throughout the day, which show your workers that you genuinely care about their safety.

6. **Integrate safety into your business**

- Safety isn’t a burden when it’s a seamless part of your regular work. When you’re inspecting for quality, inspect for safety. When you’re giving people their work assignments, remind them about hazards and controls associated with the work.

- Write out a safety policy and give your staff time to read it. Download samples from [www.ihsa.ca](http://www.ihsa.ca).

- Like any other aspect of a business, health and safety must be managed systematically to ensure quality. You need a health and safety program, which is a practical plan for implementing your policy. It covers the specifics of your work. There’s a wealth of information that you can use to build a safety program on [www.ihsa.ca](http://www.ihsa.ca). Or call us for a free consultation with one of our field consultants.

7. **Lead by example**

- Actions speak louder than words. Follow all the health and safety rules. If you don’t, your employees may think they don’t matter.

- Take action to correct unsafe conditions. If you don’t have the expertise within your company, seek help. Start with a call to IHSA.

- Reward employees who do the job safely.

8. **Get to know IHSA’s resources**

IHSA offers training that is appropriate for owners of independent businesses through courses such as

- *Basics of Supervising* (available in a home-study format)

- *Contractor Safety Essentials*

- *Occupational Health and Safety Act*

- *Canada Labour Code Part II*

- *Highway Traffic Act*

- and many more.

Visit [www.ihsa.ca](http://www.ihsa.ca) for details.

Subscribe to our free monthly email bulletin 2-Minute News. It gives you a heads-up about things such as Ministry of Labour blitzes, and each issue provides material for a safety talk. As the name suggests, you can read the info about your industry in two minutes or less. Sign up at [www.ihsa.ca](http://www.ihsa.ca) or email info@ihsa.ca.

Visit [www.ihsa.ca](http://www.ihsa.ca) and see the wealth of web tutorials, manuals, posters, and other resources on preventing injuries and illness.
Are you ready for Ministry of Labour Blitzes?

Here are the MOL enforcement blitzes on health and safety planned for the next 12 months.

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<thead>
<tr>
<th>Who?</th>
<th>What?</th>
<th>When?</th>
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<tbody>
<tr>
<td>Industrial firms (includes transportation)</td>
<td>New and young workers</td>
<td>May through August 2011</td>
</tr>
<tr>
<td>Construction firms</td>
<td>Homebuilding and low-rise construction</td>
<td>May 2011</td>
</tr>
<tr>
<td>Construction firms (GTA &amp; Mississauga)</td>
<td>Tower cranes</td>
<td>June 2011</td>
</tr>
<tr>
<td>Aggregate firms</td>
<td>Pits and quarries, sand and gravel pits (hazards associated with crushing, screening, and conveying processes)</td>
<td>July 2011</td>
</tr>
<tr>
<td>Construction firms</td>
<td>Access equipment: Ladders, Suspended access equipment, Elevating work platforms</td>
<td>August 2011</td>
</tr>
<tr>
<td>Industrial firms (includes transportation)</td>
<td>Personal protective equipment (PPE)</td>
<td>October 2011</td>
</tr>
<tr>
<td>Industrial firms (includes transportation)</td>
<td>Racking and storage</td>
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</tr>
<tr>
<td>Construction, industrial (includes transportation), and mining firms (includes aggregates)</td>
<td>Musculoskeletal disorders (MSDs)</td>
<td>February 2012</td>
</tr>
<tr>
<td>Construction firms</td>
<td>To be announced</td>
<td>March 2012</td>
</tr>
</tbody>
</table>

Make sure that you and your employees are ready for these blitzes. IHSA can help you ensure that your operations comply with the law. For more information, visit [www.ihsa.ca](http://www.ihsa.ca) or call 1-800-263-5024.
Whether you are setting up for long-term work on a busy roadway, or for a short job in the middle of a busy intersection, companies have two critical responsibilities:

1. Keep your workers safe from traffic hazards.
2. Protect the public travelling through your work zone.

1. Keep your workers safe from traffic hazards

The Occupational Health and Safety Act and the Construction Regulation set out responsibilities and requirements for working around traffic. Federally regulated companies should look to the Canada Labour Code Part II for traffic protection requirements.

You need a written traffic protection plan when you do work that exposes employees to traffic-related hazards. Here are some things that can keep your workers safe:

• Personal protective equipment (PPE) - Everyone should wear the right PPE for the job. It should include a Class E hardhat, CSA-certified grade 1 boots, reflective vest or clothing, and eye and hearing protection when required. You need additional reflective clothing when working at night or in poor visibility.

• Training - Workers and supervisors dealing with traffic-related hazards need training. Schedule regular safety or tailboard talks to review details of the traffic protection and control plans.

2. Protect the public travelling through your work zone

The Ontario Traffic Manual Book 7 - Temporary Conditions (OTM Book 7) office or field edition describes the basic, uniform requirements for companies engaged in work on or near roadways.

The manuals provide information on designing a traffic control plan that allows safe and efficient movement of vehicles, bicycles, and pedestrian traffic through work zones.

• Inspections and documentation - Perform regular inspections, documenting the results and correcting any deficiencies. Inspect equipment daily or before use. You also need to inspect the work zone to ensure that signs, cones, barrels, and other equipment are in good condition and placed correctly to maximize safety.
Implementing a good traffic plan

Make sure you identify the work area clearly. There are a variety of signs and devices available for you to alert the public. The signs must be positioned according to OTM Book 7 specifications and, to ensure visibility, signs and devices must be clean and well maintained.

It’s important to prevent the public from getting into your work area by using barriers, barricades, or crash trucks. The best method depends on the duration of the work, the type of road encroachment, and the posted speed limits.

Since human error is a major factor in traffic collisions, provide vehicles, cyclists, and pedestrians with clear direction through the work zone. Make signs obvious and space them at proper distances to allow the public to respond safely. Reduce speeds only if there is good reason to do so. The road authority may insist on additional protection such as hiring police officers to control traffic.

How IHSA can help

IHSA provides training in effective traffic control in a one-day course called Traffic Control—Temporary Work Zones. This course teaches participants how to develop an effective traffic control plan. Visit www.ihsa.ca to learn more.
Checklist for employers

The basics

☐ Ensure that those employees who drive as part of their work duties have a valid and appropriate driver’s license for the class of vehicle they drive. Take a photocopy and put it in their personnel file.

☐ Obtain a drivers’ abstract from the Ministry of Transportation. This will help determine who the high-risk drivers are so you can take corrective action.

☐ Ensure that all vehicles are properly insured, including your employees’ personal vehicles if they are used for work purposes.

☐ Service and maintain all vehicles on a regular basis. Ensure that all vehicles are inspected for mechanical safety regularly.

☐ Encourage workers to adjust their vehicles to their sizes and needs (e.g., adjust the seats, steering wheel, etc.).

Good policies

☐ Develop and communicate a safe driving policy and procedures for your company. Determine how you want your employees to drive while at work. Consult with your Joint Health and Safety Committee (JHSC), workplace committee, or worker representative.

☐ Enforce a policy of using hands-free communication equipment while driving.

☐ Enforce clear policies on alcohol and drug use. (If an employee has a collision while under the influence, your company could be held liable.)

☐ Enforce a no-smoking policy.

☐ Set a maximum number of hours your employees can drive in a day. Make sure they take rest breaks during this time.

Good practices

☐ Avoid having your employees drive in adverse weather conditions and at night.

☐ When you’re assigning deadlines to workers who are driving, give them enough time to take weather and road conditions into account, and to comply with speed limits.

☐ Ensure that your workers follow safe storage practices. Documents, bags, tools, and other equipment or materials should be stored appropriately and restrained in case of sudden braking or a collision. Install cages in station wagons, and ensure that trunk space is adequate for a worker’s materials.

☐ Train and encourage your employees to drive defensively. Visit www.ihsa.ca or call 1-800-263-5024 for information on IHSA’s defensive driving courses.

For more on safe driving and transportation, visit www.ihsa.ca.
We know your business

IHSA is mandated to help prevent injuries and illness specifically in the construction, transportation, electrical, utilities, aggregates, natural-gas pipelines, and ready-mix concrete industries. In our team, we have field consultants with skills and expertise relevant to your industry sector. Our products and publications focus on the problems and solutions you face in your particular line of work.

When you call IHSA, you’re calling a team that understands your needs.

We have what your business needs

IHSA offers state-of-the-art training and consulting services, as well as a wide range of safety products.

Training

When you choose IHSA for training, you’re choosing the best. We offer a wealth of training courses throughout the province on such topics as working at heights, basics of supervising, defensive driving, transportation of dangerous goods, confined spaces, and arc-flash risk assessment. You can take courses at one of our facilities or we can deliver courses at your location.

Audits

IHSA offers several kinds of audits. We can help you find out where you stand with regard to legislative requirements, the functioning of your internal responsibility system, and the effectiveness of your health and safety program.

Consulting

Our consultants show you how to apply best practices and world-class prevention strategies to your operations, no matter what your company size. Our staff can provide training evaluations, job-demand analyses, ergonomic assessments, policy and procedure examples, advice on health-and-safety management systems, and much more.

Products

Our wide range of manuals, safe practice guides, safety meeting packages, DVDs, posters, decals, tags, and many other items can help you comply with legislative requirements and best practices in your field.

Updates

Visit www.ihsa.ca and sign up for our popular monthly email bulletin 2-Minute News. You can read all the info related to your industry in two minutes or less! Every issue has material you can use for a safety talk.

Make health and safety work for you. Visit www.ihsa.ca or call 1-800-263-5024.
The Infrastructure Health & Safety Association’s *Working at Heights* training program addresses the basic information people need to work safely in areas where they may be exposed to fall hazards. To expand the reach of this fall-prevention training, IHSA offers the opportunity for companies and other organizations to become training partners.

By becoming an IHSA training partner, you not only gain access to IHSA’s innovative training materials, but you can also strengthen a revenue stream for your organization. For a minimal investment, you will save on the cost of sending your own employees for training and will be qualified to train others in your industry.

**The Working at Heights program addresses**

- common fall hazards
- various methods and types of fall protection
- access structures: a basic overview of ladders, scaffolds, elevating work platforms, and suspended access equipment
- related laws and regulations.

The Working at Heights Instructor Workshop will prepare you to deliver the program content and train workers within your industry. Visit [www.ihsa.ca](http://www.ihsa.ca) or call us to find out what you need to do to take advantage of this opportunity.