



SAFETY CANADA

The Member Newsletter of the Canada Safety Council

Ergonomics for Kids

Computer use is virtually universal among Canadian children. All schools and most homes have computers. A 2005 survey found that 94 percent of children from grades 4 to 11 go online from home. Indeed, 20 percent of Grade 4 students have their own personal computer; this climbs to 51 percent in Grade 11.

Kids use desktops, laptops, palmtops, handheld electronic games and mobile phones. Awareness of inappropriate content, predators, bullying and sexual harassment is increasing. Information and programs to address these issues are readily available (for example, through the Media Awareness Network). However, little attention has been paid to injuries that can result from disregarding the most basic ergonomic principles.

Are children at risk?

Computer technology is an integral part of life in this country, especially for children. Yet serious efforts to prevent computer-related injuries have largely been limited to the workplace.

Musculoskeletal disorders (MSDs) are the scourge of the computerized workplace. Workers can develop chronic pain if their workstations are set up without proper attention to ergonomics. A small change, such as re-positioning the screen or keyboard, or using an adjustable chair, can often eliminate the problem.

MSDs are a family of painful disorders affecting tendons, muscles, nerves and joints in the neck, upper and lower back, chest, shoulders, arms and hands. They include repetitive strain injuries (RSIs) which may take years to develop. Recovery can be difficult and may even require surgery in extreme cases.

Caused by work that is repetitive or requires awkward postures, these disorders account for a very high proportion of Workers' Compensation claims. Disability costs have motivated employers to minimize the risks. As a minimum, workstations are designed to meet ergonomic standards and frequent breaks are recommended.

It is not rare for children to play computer games or surf the Net for hours at a time with hardly

a break. Young children crane their necks to view monitors perched on old-style computers. "One size fits all" placement of equipment forces children's elbows and wrists into awkward angles. Such practices would not be tolerated in a workplace setting.

Is the ergonomics issue a ticking time bomb for the health of the computer generation?

Injuries to the spine and soft tissue are harder to track than traumatic injuries such as broken bones. This may explain in part why statistics on RSIs in children are generally lacking. Nor is there much research on injuries and conditions specifically caused by improper computer use. (Certain sports, or even playing a musical instrument, may also lead to RSIs.) Nonetheless, evidence is emerging that children are not immune to the physical problems that can result from improper use of computer equipment.

Anecdotally, doctors and physiotherapists are seeing more school age children with pain symptomatic of prolonged computer use at workstations that do not fit properly. The seriousness of computer-related injuries in adults raises serious questions about their effects on children.

- As adults, will they suffer chronic pain? MSDs can take years to develop; latent problems could show up later in life. In addition, back,

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For a conventional workstation, start with proper placement of the equipment, and furniture that promotes good posture and proper hand position.

Picture: California Physical Therapy Association

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Gambling Addiction

Addiction to gambling is linked to a range of serious personal and social harms such as depression and suicide, bankruptcy, family breakup, domestic abuse, assault, fraud, theft, and even homelessness. These effects can be devastating to the individual as well as their friends, family, workplace or community. That is why the Canada Safety Council considers gambling addiction a community safety and crime prevention issue.

People with gambling problems may cover up or lie when asked where they have been, or where money has gone. This makes problem gambling hard to identify. Families often know something is wrong — but not what is wrong.

You could be living or working with a compulsive gambler and not know it until the problems are out of control. It's crucial to recognize the signs and know how to get help. Lives could be at stake.

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President's Perspective

Most Canadians would be surprised to know that, except for Quebec, no province or territory requires that all vehicle occupants must wear a seat-belt. As long as all seat-belts are in use, additional passengers are legally allowed to ride without.

Wearing a seat-belt can mean the difference between life and death. National restraint use surveys show that about 90 percent of motorists in urban areas and 85 percent in rural areas wear seat-belts. That means between 10 and 15 percent are unbelted. Yet almost 40 percent of motor vehicle fatalities in this country were not wearing seat-belts at the time of the crash. In 2003, unrestrained vehicle occupants accounted for over 1,000 of the 2,700 who died in motor vehicle collisions.

According to Transport Canada, every percentage point increase in seat-belt use results in 23 fewer deaths and 515 fewer injuries nationally each year. Canada's national objective is 95 percent seat-belt use by all occupants, as well as 95 percent proper use of child restraints by 2010.

The Canada Safety Council has urged provincial and territorial governments to limit the number of passengers who can ride in a vehicle to the number of seat-belts.



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ISSN: 0048-8968 Canada Safety Council
President: Emile-J. Therien
Editor: Ethel Archard (ext. 228)
1020 Thomas Spratt Place, Ottawa, ON K1G 5L5
Telephone: (613) 739-1535 Fax: (613) 739-1566
Web site: www.safety-council.org
Charitable BN: 11882 8565 RR 0001

Gambling, from page 1.

People who gamble excessively fear their loved ones will find them out. This drives them deeper into hiding and further into debt. They hope against hope a big win will end their problems.

The Problem Gambling Project at the Centre for Addiction and Mental Health (CAMH) has devised a simple checklist for the public to take a look at to help determine whether a family member or colleague has a gambling problem. The more clues you see, the more likely that gambling is a problem needing to be addressed:

- Is your family member or colleague often late for work or school?
- Are they gone for long unexplained periods?
- Do they neglect responsibilities, and make excuses?
- Have they withdrawn from family and friends?
- Do they have mood swings and sudden outbursts of anger?
- Is there less money available, even though income has not changed?
- Is money missing from the house or from bank accounts?
- Are they secretive and bad tempered about money?
- Do they have money conflicts with others?
- Do they talk about gambling all the time?
- Do they lie about gambling?

People who gamble excessively fear their loved ones will find them out. This drives them deeper into hiding and further into debt.

Counselling is the first step to regaining control of the problems that gambling has caused, and is the best way to find a long-term solution. Free treatment, including counselling, is available to anyone affected by gambling, including family members. A list of gambling help lines across Canada is available at: www.ccsa.ca; search for "gambling helplines." Δ

Problem Gambling Helplines in Canada

Confidential and open 24 hours a day.

British Columbia Problem Gambling Information and Referral Service
1-888-795-6111

Alberta Alcohol and Drug Abuse Commission Helpline
1-866-332-2322

Saskatchewan Problem Gambling Helpline
1-800-306-6789

Manitoba Gambling Helpline
1-800-463-1554

Ontario Problem Gambling Helpline
1-888-230-3505

Québec - Gambling Help and Referral
(514) 527-2626 Montreal and surrounding area
1-800-265-2626 throughout province
Loto-Québec Helpline
1-866-767-5389

New Brunswick Problem Gamblers Hotline
1-800-461-1234

Nova Scotia Toll-Free Gambling Helpline
1-888-347-8888

Prince Edward Island Gambling Addiction Treatment Program
1-888-299-8399

Newfoundland and Labrador Helpline
1-888-737-4668

Canadian Centre on Substance Abuse

Temp workers, from page 7.

The Brussels-based non-profit association Prévention et Interim (PI) provides safety resources for temporary employment agencies, which can be downloaded in French from its Web site (www.p-i.be). A *Safety Checklist for Temporary Employment Agencies* (SCT) is used in the Netherlands and Belgium by agencies which place workers in higher risk industries, to review the safety management systems of the companies in which they place temporary workers. Available in both English and French, it can be ordered online (www.besacc-vca.be/VCA_FR.htm). Δ

Intersection

Speed Limiters

The Canada Safety Council supports a proposal to mandate speed limiters on trucks set to a maximum speed of 105 km/h.

A speed limiter, sometimes called a governor, is a built-in microchip that allows a truck engine's top speed to be preset. Trucks built in the last decade come equipped with this technology. Nonetheless, regulation would ensure all trucks operate at a safe speed. That would reduce highway collisions related to tailgating and improper lane changes.

In addition there are major environmental advantages. The measure will conserve fuel and help Canada meet its commitments under the Kyoto Accord.

Ontario Takes the Lead

In November 2005, the Ontario Trucking Association (OTA) asked the provincial government to require all trucks that operate into, out of and within Ontario to activate the speed limiters and to set the highest speed a truck can go to no more than 105 km/h.

The environmental, safety and economic benefits of mandating the activation of speed limiters at a maximum speed of 105 km/h include:

- Fuel savings of up to 10,500 litres of diesel fuel per year for a typical tractor-trailer unit — or 50 million litres in total for all such trucks in Ontario. At today's diesel prices, this would equate to annual savings of about \$ 8,400 per truck.*
- A reduction of as much as 140 kilotonnes of greenhouse gas emissions per year.*
- Less severe car-truck crashes.
- Less tailgating and improper lane changes by trucks.

- A “cushion” would still exist to allow trucks to pass slower moving vehicles, avoiding “elephant races” (long stretches of trucks operating side by side).
- Less stress on truck drivers to feel pressured to speed in order to make deliveries.
- Improved tire and brake wear.

Why 105 km/h?

Recognizing the speed limit on Ontario's major highways is 100 km/h, the proposal is to set speed limiters at no more than 105 km/h. The cruise speed for most trucks will be set at no more than 100 km/h, but a cushion of up to 5 km/h will be allowed on the “pedal” speed to enable trucks to pass slower moving vehicles (avoiding long periods where trucks operate side-by-side called “elephant races”) and to make other precautionary manoeuvres as required.

OTA tried to find a balance between the effective speed on highways and a responsible speed cap for trucks. Because the trucking industry crosses borders, it must be kept in mind there are many jurisdictions which have speed limits in excess of 100 km/h. The proposed cap will enable Ontario trucks to operate and compete in jurisdictions with higher speed limits.

Several maximum governed speeds were reviewed before choosing 105 km/h. Extensive consultation was conducted with truck drivers, truck fleet owners, road safety experts, law enforcement, engine and truck manufacturers, and the insurance industry.

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Kwiz Korner

Test your knowledge of winter driving skills.

1. If your car is covered with snow, the *minimum* you should do before driving is:
 - a. Brush off the windows, clear a good peep hole on the driver's side, and let the defrosters do the rest as you drive.
 - b. Brush off the windows and thoroughly clear a space 30 cm (one foot) square to enable you to see out the front and back windows.
 - c. Clear all snow off windows, roof and hood, and scrape the ice off all windows.
2. Below -20 C the following condition does *not* occur:
 - a. Tire chains cease to be effective for traction.
 - b. Sand ceases to increase traction.
 - c. Snow tires lose their ability to bite into snow.
3. When you get stuck on ice or hard packed snow, do *not*:
 - a. Spread sand under the tires.
 - b. Gently rock the car back and forth by shifting from forward gear to reverse using the brakes to hold the vehicle between shifts.
 - c. Apply pressure on the gas, keeping your wheels straight, and move out of the situation as quickly as possible.
4. If you don't have ABS and must stop quickly in icy or snowy conditions:
 - a. Apply strong, steady pressure to the brake pedal but without locking the wheels, and don't let up.
 - b. Pump your brakes.
 - c. Slam your foot on the brake pedal at once.
5. If you go into a skid on ice:
 - a. Apply the brakes to slow yourself down.
 - b. Oversteer to compensate for the direction of the skid.
 - c. Take your foot off the accelerator and declutch or shift to neutral.
 - d. All of the above.
6. Why do you need winter tires on all four wheels?
 - a. You don't. All-seasons are fine in most winter conditions.
 - b. They give you traction in cold and snow.
 - c. They ensure you can stop quickly in icy conditions.

Answers on page 6...



* Estimated fuel and greenhouse gas savings are based on a tractor-trailer running 125,000 miles per year.

Council Update

Following are some of the many issues which the Canada Safety Council has recently been addressing.

Gun Amnesties

Police and health and safety professionals agree that access to guns is a major factor in gun-related crime, suicides and unintentional deaths and injuries, and that reducing the number of guns in any community will save lives and prevent injuries. The Canada Safety Council is a strong advocate and supporter of gun amnesty programs, which have been successful in reducing the number of unwanted firearms in the possession of citizens.

A highly successful gun amnesty program was held in Manitoba during the month of June 2005. All municipal police, RCMP, railway police and military police participated in this successful public safety initiative. During the period, 315 firearms (213 rifles, 66 shotguns, 36 handguns), 1,480 individual rounds of ammunition, and 39 boxes of associated ammunition were turned in to police for destruction. A rash of gun-related violence in Toronto prompted CSC to urge the Ontario government to call a similar amnesty with the participation of all police agencies.

Drunk Driving Hormone?

Chronic offenders, many of them alcohol dependent, cause most of the harm related to impaired driving. That is why CSC contributes to research on individuals who repeatedly drink and drive now underway at McGill University's Douglas Hospital Research Centre in Montreal. (See July 2005 issue, page 3.) Risk factors include alcohol use disorders, family history of alcoholism, age, gender, and antisocial and risk-taking tendencies.

Researchers focused on the stress hormone cortisol. They examined the relationship between salivary cortisol and conviction history for driving under the influence of alcohol (DUI). Preliminary findings show a link between salivary cortisol levels and past DUI activity. The next steps are to determine whether cortisol can help predict future DUI behavior. A promising preventive intervention is also under investigation.

Smart Regulation

The Government of Canada established an external advisory committee in 2003 to renew federal regulations for the 21st century. The Smart Regulation initiative aims to improve cooperation and coordination between federal government departments and among federal, provincial and territorial governments. It also addresses harmonization of regulations on the international front. The guiding principles are effectiveness, cost-efficiency, timeliness, transparency, accountability and performance.

In the committee's Fall 2005 report, the regulations which impact safety were developed with ongoing input from major stakeholders such as the Canada Safety Council over a period of three years. In this process, CSC expressed its concern that safety legislation is sometimes emotionally and politically driven, and too often is not supported by adequate resources to ensure enforcement. CSC also identified the need for more governance without legislation, through public education and attitudinal change.

Time Change

A US energy bill extending Daylight Saving Time (DST) will go into effect in 2007. DST will run from the second Sunday in March to the first Sunday in November. Proponents of the time change say their country could save at least one percent on its energy bills. They foresee other benefits such as a reduction in traffic fatalities, less crime, more recreational time and increased economic activity, as well as extending the "feel" of summer.

Some Canadian jurisdictions have already decided to follow the Americans; time is a provincial / territorial responsibility. Transport Canada reports higher numbers of pedestrian injuries and fatalities in the latter part of the afternoon and during the fall and early winter, and suggests this may be due to the shortening of daylight hours during the last three months of the year. On the basis of potential safety benefits, CSC expressed its support for the extension of DST, and has been widely cited on this issue.

Suicide

In a presentation at the October 2005 conference of the Canadian Association for Suicide Prevention (CASP), CSC President Emile Therien noted that suicide takes far more lives than traffic crashes in this country and said suicide must become a national priority. He pointed to Canada's highly successful *Road Safety Vision* as a possible implementation model for a national suicide prevention strategy.

Over 90 percent of suicide victims have a psychiatric illness, most often depression, at the time of their death, in many cases undiagnosed, untreated or both. The mental health community must be at the front lines to address the causes of suicide through treatment, public education, and strategies to help at-risk individuals. CSC was encouraged when, prior to the November election call, the federal health minister announced the establishment of a new Canadian Mental Health Commission. Making mental health a national priority is a first step towards addressing the silent tragedy of self-inflicted deaths and injuries. Δ

Choosing a backpack, from page 5.

- shoulders causing numbness or a tingling in the arm which could eventually cause weakness in the hands.
- A lighter weight backpack material such as canvas instead of leather.
 - Backpacks with a waist or chest strap to keep the load close to the body for proper balance.
 - A backpack with a hip strap to help the legs take on more of the weight.
 - Built-in back support.
 - A lumbar pillow.
 - Backpacks with compartments can help even the load.
 - Consider a backpack with wheels as a good alternative. Δ

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Public Platform

Oh, My Aching Backpack!

Are you concerned about the weight of your children's backpacks as they stumble out the door on their way to school? Trust your instincts. A number of recent studies and surveys are showing more students are complaining of sore backs and shoulders, muscle strain, numbness, poor posture and balance as well as falls from carrying overloaded backpacks.

All of this is occurring at an age when children and youth are experiencing physical growth and motor and spinal development. In fact one study by the University of South Australia suggests that the excessive heavy weight of a backpack consistently carried during the first three years of high school could have a detrimental impact on spinal development that could last a life time.

Female students are more susceptible to the hazards of heavy backpacks because they are smaller in weight but are carrying the same load of books and homework as their male counterparts.



Students should not be carrying backpacks that weigh more than 10 percent of their body weight.

According to pediatric chiropractors and orthopaedic surgeons, students should not be carrying backpacks that weigh more than 10 percent of their body weight. Yet the average backpack weight for student is 17 percent. This would be the equivalent of a 150 lb. adult carrying an 26 lb. load. A recent Italian study found that 34.8 per cent of schoolchildren carry more than 30 percent of their bodyweight at least once a week.

Warning signs

If your child complains of back aches and pains and shoulder pains by the end of the school week this could be attributed to a heavy backpack, particularly if the pain diminishes by the end of the weekend. The solution is to lighten the load.

Getting the lead out

- Weigh the backpack. Aim for 10 percent of body weight which is particularly important for grades 1 to 4. Backpacks weighing more than 20 pounds should be avoided.
- Wear both shoulder straps. Wearing a backpack over just one shoulder can cause leaning to one side which could curve the spine over time. Also avoid athletic bags that have only one strap.
- Distribute weight evenly across your back. The more spread out a load is, the less strain it puts on one part of the body.
- Load the heaviest items first so it is closest to your back and then distribute the load on the right and left.
- Adjust shoulder straps so the backpack fits close to the upper part of the body. The further a backpack is away from the body, the

More students are complaining of sore backs and shoulders, muscle strain, numbness, poor posture and balance as well as falls from carrying overloaded backpacks.

more difficult it is to achieve proper balance.

- Neatly pack the backpack and keep it organized. Clean it regularly to keep it free of unnecessary clutter and weight.
- Consider using fewer plastic containers (which can add weight) in lunch bags and carry the lunch bag by hand.
- Try to make frequent trips to lockers between classes to replace books.
- Use the correct lifting techniques: bend at the knees when picking up a heavy backpack.

Shopping for a good backpack

The International Chiropractic Pediatric Association recommends that you look for the following features when buying a backpack for your child:

- Wide, padded shoulder straps. Narrow straps can dig into the

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Shoes With Wheels

A new fad has kids zooming through public buildings and along sidewalks, and hotdogging in the school yard.

Heelys are running shoes that have a detachable wheel in each heel. They convert into a skate when you shift your weight onto the heels. Remove the wheels and they turn into stylish shoes. Then pop the wheels back into the heels when you're ready to take off again.

The Canada Safety Council is concerned about the growing popularity of these trendy roller shoes. If not used properly, they can pose a danger not only to the users but also to bystanders.

Children using Heelys should wear the same protective equipment worn for skateboarding or in-line skating, including helmets, elbow pads and knee pads. They should also avoid "heeling" on roads, sidewalks and wet surfaces. Control and balance are very important; it takes about a month to master the shoes with daily practice.

CSC has recommended a ban on "heeling" in public buildings and malls, as well as school hallways and playgrounds. The Canadian Recreational Facilities Council (whose members operate 2,500 community arenas across Canada) has sent an alert to its membership supporting CSC's position. Individual schools and boards are starting to prohibit Heelys on school property.

In July 2003, the Korea Consumer Protection Board issued a consumer alert about injuries from falls related to Heelys. The alert mentioned fractured arms and legs as well as possible head injuries, and noted that no safety standards apply to the product. Δ

Ergonomics, from page 1.

neck and shoulder pain at a young age may be a predictor of similar pain in adulthood.

- Will their eyesight be damaged? Looking at the screen for hours is very stressful for the child's vision system and can lead to myopia at a young age. Eye problems must be addressed early to prevent damage.
- Is there an impact on bone development? Children's bones grow and calcify. In the late teens, bone density reaches its peak. The effects of sustained poor body position (and in some cases, computer use replacing physical exercise) are not known.

Home and School

Proper set-up and work habits are equally important at home and at school. Not only teachers but also parents must put a high priority on preventing computer-related injuries.

The push to have computers in schools has by and large ignored the physical needs of growing children. Often, the equipment is placed on ordinary desks with standard plastic chairs, for use by children of all sizes. Funding for the equipment is not matched with funding for suitable workstations.

Moreover, the time spent on computers in school pales in comparison with that outside the classroom. In many homes, workstations are poorly suited to children's needs. Ubiquitous handheld electronic devices further complicate the issue. Young people play games, send and receive messages, and surf the Net for long periods at a time non-stop, oblivious to posture or physical discomfort.

Kids use desktops, laptops, palmtops, handheld electronic games and mobile phones.... Ubiquitous handheld electronic devices further complicate the issue.

In 2000, the International Ergonomics Association established a Technical Committee on Ergonomics for Children in Educational Environments. The committee's Web site (<http://ergonomics4children.org>) offers practical guidelines as well as an online library of research.

The Basics

More study is needed on how children physically interact with computers and the effects of that interaction. Hardware and software are evolving, along with the ways people use them. For now, what is known about adult use of computers in the office is being applied to children.

Proper set-up and work habits are equally important at home and at school.

For a conventional workstation, start with proper placement of the equipment, and furniture that promotes good posture and proper hand position:

- The keyboard and mouse should be directly under the fingers when elbows are bent to about 90 degrees with upper arms relaxed. Make sure the child's wrists stay straight when keying or mousing, and do not bend up, down or to the side; this helps prevent carpal tunnel syndrome. The mouse should be right next to the keyboard so it's easy to reach. For small hands, invest in a kid-sized mouse and keyboard.
- Children should not need to bend their neck back to look at the screen. Align the top of the monitor screen with the child's forehead so it is below eye level, directly in front, not off to the side. To minimize strain on the eyes make sure children sit about an arm's length from the screen. Make sure the screen is free from glare, and adjust the brightness and text size for comfort.

If the workstation serves users of different sizes, an adjustable keyboard tray and pneumatic chair can help assure comfort for all. If, on the other hand, the furniture is not adjustable, choose a chair that places the child at the proper height in relation to the equipment. If that means a higher chair, provide a footrest to support the feet and a pillow to support the back.

Active breaks and frequent changes of position increase circulation and let the eyes relax. Parents must insist that children who use the computer for an hour or more at a time should move around often and get up every half-hour or so. They should also arrange for regular eye examinations, and encourage recreational exercise to counterbalance all the sitting. Δ

Answers to Kwiz

1. **c.** Clean all snow and ice off all windows. Also remove loose snow from the hood and roof to prevent it from blowing up on the windshield or drifting over the back window as you drive. Don't be a peep hole driver, and ensure all windows are defrosted before starting out.
2. **c.** Snow tires do not lose their effectiveness at low temperatures. But remember they have limitations. As unpacked snow turns to ice and packed snow, traction is reduced. Tire chains and sand give you traction at temperatures closer to the freezing mark, but not at very low temperatures. Always approach ice or hard packed snow with care.
3. **c.** If you apply too much power you will just spin your wheels. Rather, use the "easy does it" approach when starting on icy surfaces. Clear away snow from around the tires and create traction. Rocking the car allows you to increase the distance travelled with each rock.
4. **a.** But stop short of locking your wheels. The best defence is to leave a greater distance between your vehicle and the one ahead of you, and to reduce your speed to decrease your stopping distance. Slamming your brakes could lock the wheels and produce an uncontrolled skid. However, with anti-lock brakes (ABS), **c** is a valid answer.
5. **c.** Do not put on your brakes. Follow your natural impulse and steer to keep the car going in its original direction, but don't oversteer. When you feel the car regaining traction, start to straighten your wheels. Be prepared to handle a skid in the opposite direction.
6. **b.** The rubber in winter tires stays flexible in the cold, and their deep treads improve traction on snow. All-season tires tend to stiffen and lose gripping power around zero Celsius. Winter tires can improve your stopping distance by up to 25 percent, but nothing can magically enable a vehicle to stop quickly on ice; when the road is icy, it may take 10 times longer to stop.

On the Job

Safety and the Temporary Worker

Out of 16.1 million Canadians who have jobs, at least one-third are classified as temporaries. Between 1997 and 2003, temporary work accounted for almost one-fifth of overall growth in paid employment.

Temporary employment takes a wide variety of forms: term, contract, seasonal, casual, and placement through a staffing company. It is common in construction, resource industries such as fishing and agriculture, public administration, personal services and community services. Canadians of all ages, from teenagers to seniors, take temporary jobs — some by preference, and others because they cannot find permanent positions.

Temps tend to suffer more injuries than permanent employees, and those injuries tend to be more serious. Both the employer and the employee need to be on their guard for safety in temporary work situations.

By law, Canadian employers must ensure their workplace is safe, train employees with respect to any potential hazards, supply the necessary personal protective equipment and make sure workers know how to use it. These responsibilities apply to all workers, whether permanent or temporary.

Regardless of a worker's qualifications, employers must never leave a new temp to work unsupervised before ensuring he or she can safely perform the required tasks. Job orientation and safety training are extremely important for temporary workers. Yet surveys conducted by Safe Workplace Associations in Ontario show that many new workers report that they did not receive any such training.

Both the employer and the worker must be aware of all hazards.

In certain industries such as agriculture, logging and forestry, and construction, seasonal workers predominate. The rates of injury in those sectors are relatively high, due in large part to the nature of the work. With inexperienced seasonal workers, the risks increase. Again, both the employer and the worker must be aware of all hazards. Proper training, equipment and other safety measures are essential.

Temporary jobs are very common among young workers and those new to the workforce. Across Canada, safety programs target these higher-risk groups. The JobSafeCanada Web site (www.jobsafeCanada.ca) provides links to these programs. The site is an excellent source of safety information for students starting a summer or part-time job.



Job orientation and safety training are extremely important for temporary workers.

Often, temporary work involves a third party. Many employers, including government, hire temps through agencies. In 2003, about 386,000 Canadian workers used the services of temporary staffing firms. These firms also have a role to play in assuring the safety of the workers they place in temporary jobs.

Recognizing the need for resources tailored to the temporary work context, Canadian Search, Employment & Staffing Services (ACSESS) worked with the Industrial Accident Prevention Association (IAPA) and others to develop the *Staffing Industry Health & Safety Guide*. This publication identifies the elements of a successful health and safety program, with guidelines, training plans and best practices. It can be purchased from ACSESS (1-888-232-4962) or IAPA (1-800-406-4272). ACSESS is also a sponsor of the Safety Group Program developed by the Workplace Safety and Insurance Board (WSIB) in Ontario.

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Truck Speed, from page 1.

Put the brakes on speeding

Speeding reduces a driver's ability to steer safely around curves or objects in the roadway, extends the distance necessary to stop a vehicle and increases the distance that a vehicle travels while the driver reacts to a dangerous situation.

The speed of trucks plays a role in the severity of crashes and the incidence of fatalities in those involving large trucks. The probability and severity of injuries in a crash increase exponentially with vehicle speed. The chances of being killed in a vehicle traveling at 120 km/h are four times higher than at 100 km/h.

Truck drivers are less likely than other drivers to operate at excessive speed. From small, sporty cars to trucks and SUVs, passenger vehicles on Canada's roads are capable of very high speeds. Police regularly nab irresponsible drivers for going twice the posted speed limit.

Speeding is implicated in 17 percent of this country's road fatalities. Young drivers, especially young males, are the most likely to be involved in speed-related crashes. Under *Road Safety Vision 2010*, a task force is looking at ways to prevent speed-related deaths and injuries.

Speeding is implicated in 17 percent of this country's road fatalities.

On the engineering front, electronic enforcement (photo radar) offers an effective deterrent to speeding. Is it also possible to install speed limiters in cars, following the lead of the trucking industry?

Transport Canada is currently pilot testing devices that try to stop drivers from breaking the speed limit. One device uses GPS technology and a digital speed limit map. When the driver passes the posted speed limit, the device makes it difficult to press the accelerator. Another GPS-based device is mounted on the dashboard. It warns drivers with a voice alarm and a light when the vehicle starts to go too fast. Δ

Recent Research and Reports

Photo Radar: Photo radar speed enforcement is a proven but controversial countermeasure to address speeding. Researchers at Baruch College (New York City) assessed the impacts of a large-scale photo radar program in British Columbia. Their study revealed an annual net benefit of about \$114 million to British Columbians and a net annual saving of over \$38 million for the Insurance Corporation of British Columbia. It concluded that automated photo radar traffic safety enforcement can be an effective and efficient means to manage traffic speed, reduce collisions and injuries, and combat the huge resulting economic burden to society. Such programs should be planned and implemented with the focus on safety improvement. They may be terminated for political reasons if the public sees them as simply a “cash cow” for government.

Chen G. *Safety and Economic Impacts of Photo Radar Program*. *Traffic Injury Prevention*; 6(4): 299-307, December 2005.

Rail-highway crossings: Collisions and fatalities at rail-highway intersections in the United States have declined significantly over the past 30 years, despite much more rail and highway traffic. About two-fifths of the decrease is due to factors that have improved safety on all parts of the highway network. The installation of gates and/or flashing lights accounts for about a fifth of the reduction. The development in the 1970s and early 1980s of the Operation Lifesaver public education campaign, and the installation of additional lights on locomotives in the mid 1990s, each led to about a seventh of the reduction. Finally, about a tenth is due to closure of crossings resulting from line abandonments or consolidation of little-used crossings. Mok SC, Savage I. *Why Has Safety Improved at Rail-Highway Grade Crossings?* *Risk Analysis*; 25(4): 867-81, August 2005.

Safer cigarettes: New York’s introduction of fire safety standards for reduced ignition propensity (RIP) cigarettes has not affected cigarette sales or prices in that state. Researchers at the Harvard School of Public Health found that New York cigarette brands averaged 10 percent full length burns as compared to almost 100 percent for California and Massachusetts brands. There was no evidence that the small increases in smoke constituent yields affect the already highly toxic nature of cigarette smoke. Based on the New York experience, the study concluded that prior industry objections to producing RIP cigarettes are unfounded and recommended that other states and nations adopt similar standards. Data on smoking-related fires, deaths, and injuries after the change in law are not yet available.

Connolly GN et al. *Effect of the New York State cigarette fire safety standard on ignition propensity, smoke constituents, and the consumer market*. *Tobacco Control*; 14(5): 321-7, October 2005.

Drug-Driving: July 1, 1999, Sweden introduced zero-concentration limits for controlled drugs in the blood of drivers. Immediately after the law came into force, the number of drug-driving cases submitted by the police for toxicological analysis increased sharply. About 85 percent of all blood samples sent for toxicological analysis show one or more banned substances. Amphetamine was identified in about 50 to 60 percent of cases either alone or in combination with other controlled substances. The next most common illicit drug was tetrahydrocannabinol (THC) — about 20 to 25 percent of cases. Various prescription drugs were found, mostly with illicit substances. Researchers concluded that Sweden’s zero-concentration limit has done nothing to reduce drug-driving or deter the typical offender.

Jones AW. *Driving Under the Influence of Drugs in Sweden with Zero Concentration Limits in Blood for Controlled Substances*. *Traffic Injury Prevention*; 6(4): 317-22, December 2005.

Fatal Vision Goggles: Southern Illinois University researchers have found strong evidence that the use of Fatal Vision™ goggles (goggles that simulate the visual impairment caused by alcohol or other drugs) does not result in behavioral change. They assessed attitudes and behaviors toward drinking and driving immediately prior to and after the intervention, and then again at a four-week follow up. The group wearing the goggles reported significantly greater declines in accepting attitudes toward drinking and driving compared to the other groups at the immediate post-test. However, these differences disappeared after four weeks. Also, the change in attitude was not accompanied by a similar decrease in drunk driving behaviors. Jewell J, Hupp SD. *Examining the Effects of Fatal Vision Goggles on Changing Attitudes and Behaviors Related to Drinking and Driving*. *Journal of Primary Prevention*; ePub: 1-13, October 2005.

TV Tipovers: A study by Hospital for Sick Children at the University of Toronto looked at 18 children hospitalized with head injury related to falling televisions. It revealed television tipovers can result in significant head injuries in children, with substantial short- and long-term consequences and that head injury accounts for most of the associated deaths. The 13 boys and five girls ranged in age from 12 months to 10 years (mean 44 months). Follow up at 0.2 to 68 months (mean 13.4 months) revealed severe neurological deficits in one patient and cranial nerve deficits in six patients. It concluded that this injury is easily preventable through simple measures taken by both the manufacturers and caregivers.

Yahya RR, et al. *Children and television tipovers: a significant and preventable cause of long-term neurological deficits*. *Journal of Neurosurgery*; 103(3 Suppl): 219-22, September 2005.

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