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# SAFETY CANADA

The member newsletter of the Canada Safety Council

## **CAUTION:** Animals Crossing

If you've driven on North American roads, you've seen roadkill animals that have been killed by passing traffic. At some time, you may have run over a small animal on the road. You may even have had the harrowing experience of striking a large animal.

Road collisions kill and maim wildlife, pets and humans, and result in millions of dollars in insurance claims. Incidents are likely under-reported because when a driver swerves or stops to avoid hitting an animal, the resulting mishap may not be recorded as a collision with an animal.

Deer and other big-game populations are on the rise. At the same time, the number of vehicles on the road goes up every year. The combination of animals with traffic has led to a rise in serious collisions. Public awareness campaigns warn motorists of the danger, and new ways to prevent vehicles from hitting wildlife are being explored.

### 'Tis the Season to be Wary

Wildlife collisions are a hazard throughout the year, but they start to peak in the summer and fall. Alberta reports the most wildlife collisions in November, at the peak of the deer mating season. The majority of these crashes occur between dusk and dawn, when visibility is low. However, animal activity can be high during the daylight hours.

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The route to a cottage or campground usually includes driving long distances on highways in forested and rural areas. Many vacationers start their trip in the wee hours of the morning or drive until well after dark.

Ungulates (hoofed mammals) that stand high on their legs, such as moose and deer, pose the most danger to vehicle occupants. If they are hit they can roll onto the hood and into the windshield or roof, resulting in extensive damage and serious or fatal injury.

Today's large deer populations pose a year-round hazard. Deer collisions peak in October and November, which is the mating season and the time for migration to winter yarding areas.

Newfoundland and New Brunswick may be a moose hunter's paradise, but their abundant ungulates create a menace to unsuspecting motorists. (Equally, motorists are a menace to unsuspecting ungulates.) Those provinces report the most moose collisions during June, July and August. Moose are especially hard to



see in low light because they are dark brown and their eyes do not reflect light like those of deer.

### Avoid Ambush

The sudden appearance of a large animal in the middle of the highway, seemingly out of nowhere, is any driver's nightmare. To protect themselves, defensive drivers adapt their speed to conditions and keep alert for wildlife.

Vigilance is the first and best defence, especially when driving on unfamiliar rural roads. Watch out for warning signs that indicate high risk areas. Use eye-lead time and take extra care. Ask passengers to help by scanning both sides of the roadway. Use your high beams when no traffic is approaching and never over-drive your headlights — you need to see an animal in time to avoid hitting it.

Should you spot an animal beside the road, slow down until you have safely passed it. Expect more animals to follow. Animals near the roadside may bolt suddenly, so approach with caution. Turn on your flashers to warn other drivers.

If the animal is in your path, brake firmly but do not swerve to avoid it. Sound your horn in a series of short bursts to frighten it away. Provided you can slow down with control, steer around the animal but stay on the highway. Watch out for oncoming traffic.

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### Canada Meets Global Road Safety Challenge

Canada's official Road Safety goal is to have the safest roads in the world. How close are we?

The January 2003 report on road fatalities in OECD member countries shows Canada's traffic fatality rate as the third lowest, next only to the Scandinavian countries (Sweden, Finland and Norway) and Switzerland based on a combination of fatalities per 100,000 population and fatalities per billion vehicle kilometres. Two other countries, the UK and the Netherlands, have lower fatality rates based on population but do not provide data on kilometres driven.

Canada's driving environment is quite different from that faced by drivers in these European and Scandinavian countries. Our geography presents much longer travel distances and a wider variety of road conditions. Road safety regulation is centralized in these smaller countries. In Canada, traffic regulation is a provincial

### **President's Perspective**

Impaired driving is sometimes described as "the leading criminal cause of death in Canada." This statement is based on the perception that more people are killed by drunk drivers than by murderers.

Thanks to hard work in recent years, this statement is no longer valid. The total number of people killed in alcohol-related road crashes in 2000 was indeed higher than the number of homicides — but more than half of the crash fatalities were drivers who had been drinking. These drinking driver deaths might arguably be compared to suicides, but certainly not to homicides.

According to Transport Canada, road crashes involving a driver who had been drinking killed 864 people in 2000. Legally impaired drivers (i.e. those with a BAC over 0.08) comprised 422 of those casualties, or almost half. A further 90 deceased drivers had a BAC of 0.08 or lower. Most of these drivers could not be considered innocent victims.

If you subtract the drinking drivers, that leaves 352 fatalities in alcohol-related road crashes — still a high number, but more than 35 per cent lower than the 546 homicide victims in Canada in 2000.

It was once "cool" for an intoxicated person to take the wheel. People talked about "one for the road." Impaired driving charges against prominent citizens would pass unnoticed.

Today, most Canadians consider drinking and driving to be totally unacceptable and irresponsible. New drivers must maintain a zero BAC, and all provinces except one have administrative suspensions at or below a 0.05 BAC. Designated drivers are the rule. If a drunk driver causes death or injury, public outrage ensues.

Drinkers who drive not only risk their own lives and the lives of others. They also risk becoming social outcasts. Moreover, if convicted of an impaired driving offence they face severe penalties including a lifelong criminal record.

Impaired driving is no longer "the" leading criminal cause of death in this country, but it remains "a" leading cause. Much progress has been made, most importantly a monumental attitude shift which has helped to reduce the number of deaths and injuries.



### SAFETY CANADA

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#### Slow Cars, Fast Kids, from page 5.

There are no official Canadian statistics on lowimpact vehicle collisions that do not occur in traffic. However, the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) of Health Canada helps quantify the issue. CHIRPP tracks visits to emergency departments at 10 children's hospitals and five general hospitals across the country.

The CHIRPP database recorded 237 injuries in driveways from 1990 to 1998. Of these, close to half (110) were age four and younger. In more than half (125) of the total cases, the injured child was standing beside or behind the vehicle and the driver drove over the child. The highest number of driveway injuries were seen during the summer (39 per cent), with spring a close second (31 per cent).

Another CHIRPP report, based on 1996-98 data, found that one-quarter of those injured by vehicles backing up (28 out of 107) were aged two to four years. However, 62 per cent of those admitted to hospital were under age five indicating that more younger children suffered serious injuries.

The situation in North America seems to be similar to that in Australia, and the same precautions are in order.

### Solutions for the Blind Spot

Some new vehicles offer sensors that detect unseen obstacles behind the vehicle. For example, the General Motors Ultrasonic Parking Assist System senses objects behind the vehicle as it reverses. The system sounds a warning tone and

illuminates a lamp that is colour coded for . proximity above the rear window, which is **Always back** visible in the rear- view mirror, as you move close to the object. GM says the system may detect a stationary or moving



child, but potentially not in every case. This type of device is only an aid — not a replacement for driver vigilance. Manufacturers are working on rear-facing radar systems which would sense moving objects but these are not yet on the market.

If you have a larger vehicle, the Canada Safety Council suggests adding devices such as extra mirrors to reduce the size of your blind spot. Another way to minimize the backing hazard is to back into your driveway so you go forward to drive out. And always back up slowly — never faster than a child's walking pace.  $\Box$ 



Canada Safety Council Vice Chair Mark Yakabuski presents a plaque to Ontario Minister of Transportation Frank Klees recognizing Ontario's outstanding achievement in road safety. See page 4. (April 2003)

## Intersection

### Crowded Roads Lead to Aggressive Driving

Tinety per cent of Canadians believe that traffic congestion can fuel aggressive driving and more than 40 per cent said they become frustrated or aggressive when stuck in traffic. This is a finding of the fifth annual *Nerves of Steel* Aggressive Driving Study commissioned by TheSteelAlliance and Canada Safety Council.

Of those polled, 84 per cent admit they have committed acts of aggressive driving such as running through yellow lights or driving over the speed limit. Although this is four per cent less than last year, it is still very high, and 72 per cent of respondents feel that the incidence of aggressive driving is increasing. The study also determined that 65 per cent of Canadians polled believe traffic congestion is increasing.

Aside from traffic congestion, aggressive driving can be fuelled by a variety of other factors. More than 90 per cent of respondents become frustrated on the road when they see other drivers reading, eating and using high-tech devices such as cell phones — a 15 per cent increase from 2001.

Drowsy driving also has an impact on aggressive driving. Close to 50 per cent believe aggressive driving and lack of sleep are linked. More than 40 per cent admit they drove while drowsy in the past year, while seven per cent admit to even falling asleep behind the wheel.

For all drivers, the first line of defense is to be alert while behind the wheel and to make the driving task their first priority. The last line of defense is to make sure your vehicle is designed to protect you in the event of a crash or to avoid a collision.

In 2003, the steel industry is focusing on Advanced High-Strength Steels (AHSS) as part of an educational initiative to promote the use of new steel technologies in the automotive industry. AHSS provide advanced formability, strength and durability.

### Free CD-ROM

CSC, in partnership with TheSteelAlliance, has produced The Road to Aggression, a CD-ROM about aggressive driving.

This educational resource contains a leader's guide and a PowerPoint presentation to use as the basis for a half-hour safety discussion. The content addresses triggers that can lead to aggressive driving and how to avoid them.

Its underlying message is that when you are behind the wheel, safety must always be your first priority.

To obtain The Road to Aggression free of charge, telephone CSC at (613) 739-1535, ext. 230; fax (613) 739-1566; or e-mail csc@safety-council.org.

### 2003 Nerves of Steel Findings: Multi-Tasking on the Road

- 91% of drivers surveyed become frustrated when they see other drivers multitasking on the road – a 4% increase from 2002 and a 15% increase from 2001; more women than men surveyed were frustrated (93% vs 89%)
- What frustrates respondents the most is when they see other drivers: read or use high tech devices like laptops and hand-held devices (73%), followed by putting on make-up, shaving or combing hair (66%) and cell phone use (65%)
- 80% of respondents have engaged in at least one form of multi-tasking while driving in the past year. The majority cited drinking beverages such as coffee or pop.
- 89% have seen other drivers multi-tasking on the road. The majority cited using cell phones.
- More men drivers than women drivers surveyed admit to multi-tasking in the past year (82% versus 78%).
- 97% of drivers aged 18-49 admit they have multi-tasked in the past year, while only 64% of those who drive aged 50+ admit this. □

### Kwiz Korner

How energy savvy are you?

- Exhaust emissions from personal vehicles are a leading cause of climate change, urban smog and acid rain. True \ False
- 2. *EnerGuide* labels, like the ones on your household appliances, are now attached to all new light-duty vehicles sold in Canada. True / False
- 3. Four-wheel drive can boost fuel consumption by five to 10 per cent compared with the same vehicle with two-wheel drive. True / False
- 4. For most drivers, cruise control saves fuel on the open road. True / False
- Driving aggressively saves fuel because it gets you to your destination quicker. True / False
- 6. The optimum highway cruising speed for most vehicles is 120 km/h. True / False
- 7. Operating an air conditioner in hot weather can increase fuel consumption by more than 20 per cent in city driving. True / False
- 8. At highway speeds, you'll save money by rolling down your windows and turning off the air conditioning on hot summer days. True / False
- 9. Idling is good for your vehicle and the environment. True / False
- 10. A poorly maintained car will consume more fuel and produce five to 10 times more emissions than a car in proper running order. True / False

Used with permission, from Auto\$mart Quiz, Natural Resources Canada, Office of Energy Efficiency

Answers on page 8....

For information on driving and fuel efficiency visit: http:// oee.nrcan.gc.ca/transportation



Global Road Safety, from page 1.

responsibility, with the result that some approaches (such as photo enforcement) are not uniformly implemented across all jurisdictions. As well, we have one of the highest ratios of car ownership in the world, with close to one vehicle for every two Canadians.

### **Driving Casualties Down**

The latest statistics from Transport Canada show a continuing downward trend. In 2001, there were 2,778 traffic fatalities, down five per cent from 2000. While this still appears to be a very high number, it represents a drop of one-third since 1982, when there were 4,169 fatalities.

Injuries have not decreased as dramatically as fatalities — 225,717 in 1982, compared with 221,158 in 2001. The number of licensed drivers increased by almost 40 per cent during that 20 year period, which means the rate of injury today is lower.

Despite impressive progress, across Canada there are still more than 50 deaths and 600 injuries a week due to road crashes. Transport Canada's *Road Safety Vision 2010* aims to reduce Canada's road fatalities to fewer than 2,100 by 2010.

Vigorous enforcement, supported by public education will be critical to achieve this ambitious goal. The 2001 statistics confirm the priorities currently being addressed by jurisdictions across Canada. For example:

*Seat-belts* — While 90 per cent of motorists regularly buckle up, almost 40 per cent of those killed and nearly 20 per cent of those seriously injured were not restrained.

*Impaired Driving* — Close to 30 per cent of all driver fatalities were legally impaired. Of these about 70 per cent had BACs more than twice the legal limit.

*Seniors* — One-third of pedestrian fatalities were 65 years of age or over. (Based on kilometres driven, studies show that senior drivers also have an above-average rate of collisions.)

### **Ontario the Lowest Fatality Rate**

Fewer people died on Ontario roads in 2001 than in any year since 1950. While the number killed in crashes is still high, at 845, Ontario's fatality rate was the lowest in North America. Credit is due to ongoing, pro-active efforts by the provincial government and its many partners to improve driver behaviour, vehicle condition and infrastructure safety.

In 1972, the traffic fatality rate was at its highest, 5.24 deaths per 10,000 drivers, compared with 1.02 for every 10,000 drivers in 2001.

The Ontario Road Safety Annual Report provides a breakdown of factors involved in the collisions. This data base enables the province to target the most dangerous driving behaviours and situations. Other provinces also keep details on motor vehicle collisions. These reports serve as a valuable basis for establishing safety priorities.

For example, 149 (18 per cent) of Ontario road fatalities in 2001 involved speeding above the limit or too fast for conditions. In addition, 72 fatalities involved drivers who failed to yield right-of-way, and a further 69 involved drivers who disobeyed a traffic control.

### Unity On Road Safety

From seat-belt legislation to graduated licensing, Canadian jurisdictions have implemented effective safety measures over the years. At the federal level, our impaired driving legislation is among the strictest in the world. Vigorous enforcement of these laws and regulations is critical for ongoing progress.

> Among the targets in Canada's *Road Safety Vision 2010* are to reduce casualties resulting from non-use of restraint systems, drinking and driving, speed- and intersection-related crashes, and highrisk road user behaviour. Action is being taken on these and other priorities. For example, a Speed and Inter-section Safety Management Task Force

has proposed strategies that focus on education/awareness, research, road infrastructure/standards and enforcement to address speeding and intersection safety.

Political issues can be controversial among jurisdictions. However, there is nation-wide agreement on key strategies for road safety. Having the safest roads in the world is an ambitious goal, and one to which governments at all levels are committed.

Data sources:

2001 Ontario Road Safety Annual Report Canadian Motor Vehicle Traffic Collision Statistics 2001 PRI-News, January 2003, OECD statistics

There is nationwide agreement on key strategies for road safety.

## Public Platform

### Safe Cycling Brings Health and Happiness

ycling is good for your heart, improves your balance and co-ordination, helps with weight control, enhances your general well-being and promotes mental health. Beyond the health benefits, it's an enjoyable way to get around.

Riding a bicycle is a very effective form of aerobic exercise. It's also convenient, exhilarating and good for the environment. Health experts believe that after just a few weeks of regular cycling, regardless of age, gender or initial physical fitness, the cyclist will be fitter and enjoy a greater sense of well-being.

### Children Get the Safety Message

Riding a bicycle is one of the joys of childhood. Parents must teach their children how to ride safely, ensure their child's bike and helmet are well maintained and fit properly — and most importantly, set a good example.

When cyclists are young and inexperienced, they tend to lose control or balance and fall off the bike. Mishaps occur when they ride out of a driveway without stopping, go through stop signs or red lights, and turn (often to the left) without checking.

A March 2003 report by the Canadian Institute for Health Information (CIHI) shows that hospitalizations due to bicycle-related injuries among children 5 to 19 years of age declined by 12.5 per cent over the five-year period 1997/98 to 2001/02.

Fatalities have gone down dramatically. In 1984, before the value of helmets was recognized, four times as many cyclists age 19 and under were killed; Transport Canada statistics for that age group show 88 fatalities in 1984, compared with 21 in 2001. Tragically, in 2001 not one of the 12 cyclist fatalities under age 15 was wearing a helmet.

### Adults - Room for Improvement

CIHI found relatively little change in the number of bicycle-related hospitalizations among adults during the fiveyear time period covered by its report. More adults than children are killed while cycling. This is a dramatic change from two decades ago. In 2001, there were 60 bicycle fatalities.

Of these, 36 per cent were children and teens (age 19 and under), and 64 per cent were adults (over 19). In 1984 there were 138 fatalities and the proportion was exactly the opposite — 64 per cent were children

and teens, and 36 per cent were adults.

A 2002 Canada Safety Council survey sponsored by Liberty Mutual found that over half of Canadian adults who ride bicycles don't wear a helmet. Increased use of helmets could save a significant number of lives.

About 90 per cent of cycling fatalities are caused by cyclists being struck by motor vehicles. Children usually ride within their own community. Adult cyclists are more likely to ride in heavy traffic. Alcohol use is another factor in adult cyclist fatalities. A study by the Traffic Injury Research Foundation, covering 1987 to 1997, found that 25 per cent of cyclist fatalities had been drinking.

### **Active Transportation**

If you have a choice, walk or ride a bicycle instead of driving. For the safety-conscious cyclist, the many benefits of "active transportation" outweigh the risks.

CSC is a partner in the Canadian Council for Health and Active Living at Work, which has published *Walk* & *Roll: A Guide to Active Transport To, From* and At the Workplace. This comprehensive guide helps organizations encourage their workers to walk or cycle to work. It provides a step-by-step outline for developing a workplace active transportation plan. *Walk* & *Roll* is available in hard copy or as part of the *Active Transportation Resources* CD-ROM. To order visit www.goforgreen.ca. □

### Slow Cars, Fast Kids

If there's a toddler around, beware of backing up.

In April 2003, the Australian Transport Safety Board (ATSB) released a study on young children who died as a result of low-speed motor vehicle impacts. Tragically, these incidents mostly occurred at the child's home and involved a driver who was a family member or friend.

The fatalities averaged 12 annually throughout Australia during the study period, with some year-toyear variation. There were 17 deaths in 1996, ten in 1997 and nine in 1998.

Most of the victims were young toddlers — old enough to move quickly, but too small for the driver to see easily when they were close to the vehicle. Most of the vehicles were large 4WD passenger vehicles, large utility vehicles, delivery vans or heavy trucks. Most often, the child had followed an adult out of the house without being seen.

As a result of its study, the ATSB has launched a campaign to give the public a few simple safety precautions that could prevent a tragedy:



- Always supervise children whenever a vehicle is to be moved. Hold their hands or hold them close to keep them safe.
- If you're the only adult at home and need to move a vehicle, even only a small distance, place children securely in the vehicle while you move it.
- Treat the driveway as a small road. Discourage children from using it as a play area.
- Make access to the driveway from the house difficult for a child. Consider using security doors, fencing or gates.

### North American Perspective

Kids and Cars, an American non-profit organization that collects statistics on backover incidents from public records, says that in 2002 at least 58 children died in the US as a result of being backed over by a motor vehicle.

According to Kids and Cars, over 80 per cent of the victims are under four years of age, and a parent or close relative is behind the wheel in about 60 per cent of the cases. To page 2....

Use common sense, obey the rules of the road and always wear a helmet.

Wildlife Collisions, from page 1.

#### **Engineering Solutions**

Corridors which wildlife have used for millennia now intersect roads. Wildlife researchers and safety officials are seeking better ways to protect motorists from wildlife and vice versa.

Parks Canada erected an eightfoot high fence along the Trans-Canada Highway through Banff National Park. To redirect animal traffic, 22 underpasses (culverts) and two 164 foot wide

to protect motorists from

wildlife and vice versa.

overpasses were built. Highway kills dropped 96 per cent.

Reflector devices are being tested in some communities. They pick up car headlights and

direct a reflected beam to deter deer from crossing in front of traffic. While the reflectors have disadvantages, they seem to be more effective than whistles or odour repellants. They may not be the best solution where wildlife is active during the daytime hours.

Two new high-tech roadside systems developed in Canada take

#### Driver Improvement, frompage 7.

#### **Beyond the Bottom Line**

It may well be "the other guy" who causes a collision. Nonetheless, it's not always the guilty driver who suffers death, injury, financial loss or inconvenience. Even if you are absolutely blameless, you may have been able to prevent the collision. Furthermore, you can suffer, and so can your passengers, as though you had been at fault.

Being in the right will not save you from a crash. You must be prepared for the unsafe actions of other motorists or for poor driving conditions. A driver improvement program will show you how to protect yourself and your loved ones by driving defensively.  $\Box$ 

1. Work Injuries and Diseases: Canada 1999-2001, National Work Injuries Statistics Program, Association of Workers' Compensation Boards of Canada. (Proportion excludes work-related diseases and conditions.)

2. The Insurance Bureau of Canada reported an increase from \$4,258 in 1997 to \$5,970 in 2001. These costs do not take into account Quebec, Manitoba, Saskatchewan or British Columbia, which have government auto insurance.

3. Estimates vary. The 30 per cent figure is based on 2000 test drive results from the Royal Automobile Club of Victoria (RCAV), Australia. opposite approaches to the problem. One warns the animals. The other warns the drivers.

The Wildlife Warning System, developed by Saskatoon-based International Road Dynamics Inc., uses proven technologies to sense vehicles and then to warn the animals. The system monitors traffic entering a problem area. Approaching vehicles trigger a sensor, which selectively activates deterrent devices

(e.g. sounds or Wildlife researchers and safety lights) to scare the officials are seeking better ways animals away from the road and let traffic pass safely. The Saskatchewan government is

> testing the system on a stretch of highway notorious for wildlife-vehicle collisions. There are no official results yet, but during the first year of operation deer-vehicle collisions seem to have dropped.

> The Wildlife Protection System, developed by InTransTech in Edmonton, uses infrared cameras to detect the presence of wildlife on or near the highway and then warns drivers with realtime information to slow down. Based on infrared technology the system works in both light and darkness. It also has the ability to see through smoke, snow and fog with actual visual quality dependant on the thickness or density of the material in the air. The Insurance Corporation of British Columbia is piloting it in Kootenay National Park.

> Similar NASA infrared technology is available in some General Motors cars. NightVision<sup>TM</sup> enhances the driver's ability to detect potentially dangerous situations, such as the presence of animals or pedestrians, beyond the range of the headlamps.

> These are a few of the techniques being tried to prevent collisions with wildlife. However, there is still no substitute for a defensive driver.  $\Box$



Wildlife Protection System: flashing lights ahead warn drivers of the presence of deer. Courtesy InTrans Tech

### **Collisions with Wildlife** a Problem Across Canada

### Maritimes

Newfoundland reports over 500 moose-vehicle collisions and vehicle damage costs of more than \$1 million annually. New Brunswick reports about 250 moose-vehicle collisions a year.

### Quebec

There are over 7,000 collisions annually with deer, moose, caribou and black bears (in order of frequency) including 1,500 with moose. In one region, one-third of all road crashes involve deer.

#### Ontario

In 2001, wild animals were involved in four fatal collisions (initial impact) and 490 injury collisions as well as 10,632 property damage collisions.

#### Manitoba

In 2000, Manitoba Public Insurance paid out \$16 million in claims related to wildlife collisions, an increase of \$4 million from 1999. About 8,200 collisions were reported and 200 people were injured.

### Saskatchewan

In 2001 there were 11,775 collisions with animals, and Saskatchewan Government Insurance paid \$22.6 million in claims. The cost of wildlife/vehicle collisions is growing at a rate of more than \$1-million per year.

#### Alberta

Collisions involving wildlife and domestic animals have nearly doubled in the past 10 years, from 5,997 cases in 1991 to 11,412 in 2001. There are an average 4.5 fatalities and 301 injuries annually.

#### **British Columbia**

In 2001 wild animals were a factor in 349 injuries and 2 fatalities. Domestic animals were involved in a further 85 injuries and one fatality.

## On the Job

## **Driver Improvement At Work**

A new 2003 edition of the Canada Safety Council's Defensive Driving Course (DDC) is now available. If your safety program does not already include driver improvement, now is the time to look at the benefits of implementing DDC.

which work-related tasks carry the most risk? If you survey your workplace, you may find, as others have, that most employees rank driving as their riskiest activity.

One national Canadian company found that 60 per cent of its staff indicated they feel most at risk of injuries while driving on the job, or to and from work.

This perception is valid. Statistics from Canadian workers' compensation boards show that in 2001, motor vehicle collisions accounted for 31 per cent of all traumatic injury fatalities as well as 10,000 time loss injuries.<sup>1</sup>

Predictably, the transportation sector had the highest proportion of casualties. Nevertheless almost all industry divisions reported significant deaths and injuries due to "highway accidents."

These figures may not capture the full extent of the problem. This is because they only include lost time injuries resulting from motor vehicle collisions that are work-related and accepted for compensation by the various Workers' Compensation Boards and Commissions. They do not include incidents that are not directly work related, such as commuting. Also they do not include injuries to workers not covered by Workers' Compensation legislation.

### Better Drivers, Lower Costs

Any business that has company vehicles will have collisions. The more collisions in the fleet, the higher the medical and vehicle insurance costs. Moreover, direct costs are like the tip of an iceberg. If an employee is injured, the often-hidden indirect costs can include lost time and productivity, and possibly hiring and training a replacement.

The average cost per claim for private passenger vehicles increased by 40 per cent over five years.<sup>2</sup> Rising liability and repair costs are reflected in insurance costs. For individuals as well as fleets, collisions lead to higher insurance premiums. In addition, if an employee is injured while on the job, the employer may be subject to Workers' Compensation increases.

Today, due diligence is as important a consideration as cost control. Occupational health and safety regulations hold companies accountable if their employees are injured when conducting job-related duties for which they have not been trained.

For an individual or a small business with fewer than 10 vehicles, the benefits of a driver improvement program are hard to quantify unless a crash actually occurs. Typically, the deductible for a small fleet is \$5,000 to \$10,000. That comes straight from the bottom line when a collision happens.

Larger fleets track the frequency and cost of collisions. This permits them to assess the preventive value of

driver improvement programs. For example, a transport company reported that drivers who had taken DDC were involved in 70 per

cent fewer chargeable collisions than those who had not; the average dollar cost per collision for the trained drivers was 33 per cent lower. A municipality reported a 58 per cent reduction in the number of vehicle collisions five years after introducing DDC.

For employees who have a company car or drive their own vehicle



Employees rank driving as a risky activity.

### The Defensive Driving Course

(DDC) is a six-hour discussioncentred course taught in six sessions by certified instructors. Support materials include an Instructor Manual, student workbook, PowerPoint presentations and videos.

For information about the new Green DDC visit CSC's Web site (www.safety-council.org) or phone (613) 739-1535, ext. 230.

on the job, driving is a matter of occupational safety. However, an estimated nine out of 10 time-loss injuries happen off the job. Safe drivers lose less time from work because they avoid collisions. That is why all employees who have a driver's licence can benefit from DDC.

### **Defensive Drivers Use Less Fuel**

The way you drive affects the amount of fuel your vehicle uses. Simply driving more smoothly can save up to 30 per cent<sup>3</sup> or more on gas — and defensive driving habits enable smooth driving. For example, when you anticipate traffic conditions, leave a three-second following distance and

Defensive driving: driving to prevent collisions in spite of the actions of others and the conditions around you. respect speed limits you avoid constant acceleration and braking, which are hard on fuel consumption. Jack-

rabbit starts and hard braking not only show poor driving technique but also waste fuel.

The Canada Safety Council's guidelines on incentive programs for long-haul truckers combine safety and productivity, including fuel efficiency. Transport fleet managers who analyse performance know that, statistically, drivers with a good safety record also use less fuel.

The 2003 edition of DDC, a.k.a. the Green DDC, offers a unit on how to improve gas mileage and reduce emissions. That unit covers fuelefficient driving techniques, vehicle options, use of cruise and air conditioning, maintenance, alternative fuels and other aspects of environmentally friendly driving.

### Answers to Kwiz Korner (p.3)

- 1. TRUE. Light-duty vehicles, including the family car, account for about 17 per cent of Canada's total carbon dioxide emissions, as well as other pollutants. The average car produces 2.4 kilograms of carbon dioxide for every litre of gasoline used.
- 2. TRUE. *EnerGuide* has come to the automotive world. The *EnerGuide* label will show you the vehicle's fuel consumption rating and estimated annual fuel costs.
- 3. TRUE. The weight and friction of the additional drivetrain parts in a four-wheel drive vehicle impose a significant penalty in fuel consumption – especially when you consider that most people never use the vehicle for off-road travel.
- 4. TRUE. Cruise control allows the vehicle to maintain a reasonable and consistent speed which is safe, fuel-efficient driving.
- 5. FALSE. European studies have shown that aggressive driving saves little time and can increase fuel consumption by 39 per cent. The safer, more fuel-efficient option is to accelerate smoothly and maintain a steady speed.
- 6. FALSE. For most vehicles, increasing your speed from 100 km/h to 120 km/h will boost fuel consumption by about 20 per cent. On the other hand, reducing your speed from 100 km/h to 90 km/h (the optimum speed) improves fuel economy by about 10 per cent.
- 7. TRUE. Air conditioning draws a lot of power from the engine. The effect is even more severe on smaller engines.
- 8. FALSE. At highway speeds, open windows or sunroofs increase aerodynamic drag – and that makes the engine work harder and consume more fuel.
- 9. FALSE. Idling can be hard on an engine because fuel combustion is incomplete and some fuel residues condense on cylinder walls. It is also hard on the environment because the catalytic converter does not reach its peak operating temperature, which means that emissions are escaping from the tailpipe.
- 10. TRUE. Proper maintenance is crucial for fuel efficiency. Even something as minor as a dirty air filter or under-inflated tire can increase fuel consumption.

### Did you know?

Drunk drivers in single vehicle crashes — On average 73 per cent of all fatal collisions involving a drinking driver in Saskatchewan are single vehicle crashes. In collisions involving a drinking driver where someone was injured, almost 60 per cent are single vehicle crashes. There are passengers in over half of these alcohol-related single-vehicle collisions and over 60 per cent occurred at night when the drinking driver is on the way home. If these motorists travelled with a designated driver, taken a taxi or asked for ride home, in all likelihood these collisions would not have happened. SGI RoadSmart Report, Saskatchewan Government Insurance, April 2003

Home fire deaths down — In 2002, the fire death rate in Ontario reached a record low of 7.8 fire deaths per million population, with 94 fatalities. This marks a decrease of 43 per cent from 1997, when there were 155 fire deaths. The number of injuries related to preventable home fires also dropped by 43 per cent, from 78.9 per million in 1997 to 45.1 per million in 2002.

Ontario Fire Service Messenger, March/April 2003

Job fatalities up — The number of work-related fatalities in Canada rose 10 per cent between 1999 and 2001 from 835 to 920. The statistics include deaths due to traumatic injury as well as those caused by work-related diseases, conditions and disorders. There were 379,450 accepted timeloss injuries in 1999, up to 392,502 in 2000, then back down to 373,216 in 2001. Each year, musculoskeletal injuries accounted for almost half of the injuries; the back was the most commonly affected body part. Work Injuries and Diseases: Canada 1999-2001, Association of Workers' Compensation Boards of Canada

Unlicensed drivers — In the US, one fatal crash in five (20 per cent) involves a driver who is unlicensed or whose licence is suspended, cancelled, or revoked. Unlicensed drivers are almost five times more likely to be in a fatal crash than are validly licensed drivers, and two-thirds of drivers continue to drive while under suspension. The report suggests that properly applied sanctions and suspensions can reduce the number of unlicensed drivers on the roads. *Unlicensed to Kill: The Sequel*, AAA Foundation for Traffic Safety, January 2003

*American BAC laws* — On October 23, 2000, US President Clinton signed federal legislation, under the Transportation Equity Act for the 21<sup>st</sup> Century, under which states can qualify for grant funds if they enact and enforce a conforming 0.08 BAC per se law. To date, 34 states, plus DC and Puerto Rico, have complied. The remaining states, with the exception of Massachusetts which has no per se offense, have per se limits of 0.10. National Conference of State Legislatures Web site, May 2003

Workplace bullying — Quebec is the first North American jurisdiction to enact legislation against psychological harassment in the workplace, which it defines as "...any vexations behaviour in the form of repeated and hostile or unwanted conduct, verbal comments, actions or gestures, that affects an employee's dignity or psychological or physical integrity and that results in a harmful work environment for the employee." The amendment to the province's Labour Standards Act comes into force on June 1, 2004 makes employers liable to victims for lost wages, punitive damages, compensation for loss of employment and the cost of psychological support. Psychological Harassment in the Workplace, N. Grosman, May 7, 2003, Workopolis.com

*Sobering Up?* — People who are sobering up are less able to think and plan effectively than people in the process of getting drunk, even at the same BAC level. A study by Robert Pihl of McGill University and Jordan Peterson of the University of Toronto found cognitive deficits were greater after heavy drinking, when BACs are dropping, than while the drinker is becoming intoxicated. Alcohol breaks down into various toxic chemicals when it metabolizes. Some of these other chemicals, which cannot be detected by a breathalyser, impair cognitive function and increase aggression. Alcoholism: Clinical 🗇 Experimental Research, May 2003