

Young and New Driver RESOURCE CENTRE



SEATBELTS

WHAT IS...

What are seatbelts?

Since the early 1900s, manufacturers have experimented with incorporating a safety restraint into the design of their vehicles. By the late 1960s, this safety restraint, or the 'seatbelt', became mandatory and was a standard feature provided for each seat in the vehicle¹. Seatbelts secure passengers by crossing their chest and/or waist with a material belt that fastens into the side of the seat. The many other safety features that are rapidly becoming standard in vehicles, such as airbags, padded dashboards and head restraints, are much more effective if occupants are wearing their seatbelt².

Seatbelts decrease the risk of injury or death in a crash by reducing the movement of occupants inside the vehicle. For instance, if the vehicle is struck and an occupant is not wearing a seatbelt, their body becomes a projectile that can hit anything else inside the vehicle, such as the steering wheel, dashboard or other passengers. With the belt on, the body can minimize its contact with other objects in the vehicle that are moving toward the point of impact. Belts also prevent occupants from being thrown out of the vehicle, through the windshield or doors, where they could hit a pole, tree or rock, or be struck by another vehicle³. Three-quarters of occupants ejected from a vehicle will die⁴. The National Highway Traffic Safety Administration (NHTSA) considers seatbelts to be the single most important protective mechanism available to adult vehicle occupants⁵ and found that they reduce risk of serious injury to the head, chest and extremities by 50%- 83%⁶.

BEHAVIOURS

How many Canadians wear seatbelts?

Seatbelt use in Canada increased from 93% in 2007 to 95% in 2010⁷. This increase is promising and meets the target that

was jointly set by federal, provincial and territorial Ministers of Transport a number of years ago. Although this is a high rate of seatbelt use, increasing seatbelt usage to 100%, if possible, would save a significant number of lives. In 2007 the 7% of Canadians that did not wear seatbelts accounted for almost 40% of collision fatalities, illustrating the importance of seatbelts in preventing deaths. Seatbelts save a thousand lives a year in Canada⁸.

Who is least likely to wear seatbelts?

Young males and drivers aged 18-24 are the least likely groups of drivers to wear seatbelts. The older the age of the driver, the more likely they will wear their seatbelt. The driver's area of residence also affects seatbelt use. Those who live in urban areas are more likely to wear seatbelts than those in rural areas. This means that as population increases, the rate of seatbelt use increases⁹. The rate of seatbelt use in Canada is lowest among occupants of pickup trucks (92%)¹⁰.

Drivers who are already considered 'risky', such as drivers who follow too close to other vehicles, run red lights or speed, are less likely to buckle up, and even more likely to be involved in crashes. These drivers are also more likely to have previous traffic violations. Drivers who have consumed alcohol are more likely to drive without buckling up¹¹. This is important because many fatal crashes involve alcohol (more than 30%), and by driving without a seatbelt, drunk drivers are putting themselves in even more danger behind the wheel.

When are young drivers less likely to buckle up?

Studies show that when young drivers are driving late at night, with passengers that have high blood alcohol content and with passengers under the age of 29, seatbelt use is much lower than when young drivers are driving alone¹². Thus, a decline in seatbelt use occurs in some situations involving young drivers who have the highest risk of crashing. It is already known that young drivers increase their risk of crashing when driving at night and/or with young passengers. Failing to wear a seatbelt in these situations make young drivers even more vulnerable to death or injury in a crash.

1 Sefcik 2012
2 Transport Canada 2007
3 Transport Canada 2007
4 WHO 2009
5 ICBC 2006
6 Strine et al. 2010
7 Transport Canada 2010

8 Transport Canada 2007
9 Strine et al. 2010
10 Transport Canada 2010
11 Preusser et al. 1991
12 Williams and Shabanova 2002

How often do young passengers wear seatbelts?

The use of seatbelts among young passengers is even lower than the use of seatbelts among young drivers. The rate of passenger belt use decreases among teens as the number of young passengers in the vehicle increases. This is especially the case for passengers in the back seat of the vehicle¹³. For instance, in Canada, the rate of seatbelt use is much lower among back seat occupants (89.2%) than among front seat occupants (95.5%)¹⁴.

Drivers who are wearing their seatbelt are five times more likely to die in a crash if their back seat passengers are not wearing their seatbelt. Injuries to the driver and front seat passenger are caused when the people in the back who are not buckled up catapult to the front. If backseat passengers increased their seatbelt use, up to 80% of the deaths caused by these kinds of crashes would be eliminated¹⁵.

ATTITUDES, CONCERNS AND PERCEPTIONS

Are Canadians concerned about seatbelts?

When respondents of the 2008 Road Safety Monitor (RSM) released by the Traffic Injury Research Foundation (TIRF) were asked what driving behaviours most concerned them, not using a seatbelt ranked third last on the list. Only 66.1% of respondents considered this driving behaviour to be very or extremely risky. Drunk driving ranked first with 95% of respondents considering this an extremely risky driving behaviour¹⁶. This means that Canadians are only moderately concerned with seatbelt use and do not consider it as dangerous as drunk driving, although lack of seatbelt use plays an important role in many deaths caused by speeding, drunk driving, and other dangerous road behaviours.

What do young drivers think about seatbelts?

In a focus group conducted in the United States, young drivers were asked about seatbelts. None of the teens thought that driving without a seatbelt was a hazardous behaviour. Drivers were more likely to wear seatbelts in the front of the vehicle than the back. When asked why they did or did not wear seatbelts, many wore them only because it was something their parents had insisted upon, and it became habit. Some respondents only buckled up if they saw a police car and others buckled up to avoid hefty fines. Some respondents buckled up when the weather was bad or when they were in a vehicle with a driver who was known as a 'bad' or 'dangerous' driver¹⁷.

13 Williams and Shabanova 2002

14 Transport Canada 2010

15 ICBC 2006

16 Vanlaar et al. 2009

17 NHTSA 2006

What are the myths about seatbelts?

Myth	Fact
When there are airbags, you don't need to wear a seatbelt.	It is unsafe to rely on other vehicle safety features instead of seatbelts; airbags deploy at high rates of speed.
Seatbelts prevent passengers from escaping from a burning vehicle or a vehicle submerged in water.	Seatbelts prevent the occupant from being knocked unconscious and from moving around the vehicle. Chances of escaping a fire or water-related crash are three to five times higher if the occupant is wearing a seatbelt*.
Seatbelts are unnecessary for short trips at low speeds.	Of all road crash casualties who were not restrained, 70% were travelling less than 50 km/h. Two-thirds of crashes happen less than 15 km away from home*.
Seatbelts cause injuries.	Seatbelts actually reduce the severity of injury in a crash.
It is safer to be thrown out of/away from a vehicle in a crash.	An occupant is four times more likely to die if thrown from a vehicle in a crash*.

* WHO 2009

LEGISLATION

Are there provincial laws about seatbelts?

Yes. All provincial Highway Traffic Acts have laws regarding the proper use of seatbelts in vehicles. For example, all seatbelts in the vehicle must be working and worn by all passengers present. If passengers are under age 16 it is the responsibility of the driver to ensure they have a functioning seatbelt and are wearing it properly.

Fines for not wearing a seatbelt range from \$75 to \$280 depending on the jurisdiction. Ontario drivers, for instance, would receive a \$110 ticket if caught without their belt on. Demerit points are also given for seatbelt infractions. Drivers in Saskatchewan accumulate three demerit points when driving without their seatbelts whereas drivers in Alberta receive no demerit points for the infraction, unless they are still in the graduated licencing program, in which case they would receive two points¹⁸.

SOLUTIONS

What can parents do to encourage seatbelt use from a young age?

Parents can set a good example by wearing their own seatbelts as well as buckling up any children in the vehicle.

18 CCMTA 2010

Drivers who do use seatbelts are more likely to buckle up their children. This is a crucial time to begin teaching the importance of seatbelts to young passengers – risky behaviours developed in childhood continue in adolescence and adulthood. Thus, if children are buckled up as soon as they are no longer using a car seat, the behaviour will become a habit and they will be much more likely to buckle up when they are older and no longer under parental supervision¹⁹.

What is the proper way to wear a seatbelt?

In order for seatbelts to reduce the risk of death or injury in a collision up to 60%, they need to be worn properly. If worn properly, seatbelts spread the force of a collision over the stronger areas of the human skeleton. Follow these guidelines to ensure a seatbelt is worn properly:

- > Buckle belt securely;
- > Fit lap belt snugly across hips, not abdomen;
- > Ensure shoulder belt sits firmly across the chest, never tucked under the arm²⁰;
- > Do not recline the seat while wearing a seatbelt in a moving vehicle;
- > Ensure there is only one passenger per belt, never double up;
- > Do not use aftermarket adjusters that alter the path of the seatbelt; and,
- > If pregnant, make sure the waist belt sits low on the pelvis, below the baby²¹.

What programs and initiatives exist to encourage seatbelt use?

There have been several efforts by the government, non-profit organizations and police forces to encourage drivers to buckle up. Fortunately, these initiatives have strongly encouraged usage, but young drivers are still the least likely age group to wear their seatbelts, and this needs to change.

Devices such as the 'rollover simulator' have been developed to show young drivers the significant difference between a crash while wearing a seatbelt and a crash without wearing a seatbelt. The rollover simulator is a cab of a vehicle with a motor mounted on its top. The motor rolls the cab, simulating a rollover incident, and straw-filled dummies are used to show the effectiveness of seatbelts with them being belted and later unbelted. The goal of the rollover simulator is to help save lives by showing people that seatbelts are the best protection in most types of single vehicle crashes. Saskatchewan Government Insurance has partnered with the RCMP to take this simulator on the road to rural high schools, First Nations communities, trade fairs, malls, and other community events as part of its traffic safety education program.

For more information please visit: www.sgi.sk.ca/individuals/safety/seatbelts/simulator.html.

The most successful seatbelt enforcement campaign ever in the United States was the "Click it or Ticket" program developed by the NHTSA. This program was aimed at young drivers, especially males, and encouraged seat belt use by raising awareness about the fines for the infraction. Television commercials, posters, and other public advertisements made the program a success and seatbelt use by 16-24 year olds increased from 61% in 1996 to 82% by 2003. Jurisdictions that adopt this comprehensive approach can achieve usage rates of 95%. This program illustrates the importance of the role that law enforcement and fines play in influencing the behaviours of the young driving population.

For more information please visit: www.nhtsa.gov/CIOT.

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19 Durbin et al. 2007

20 Transport Canada 2007

21 ICBC 2006