

Young and New Driver RESOURCE CENTRE



SPEEDING

WHAT IS...

What is speeding?

Speeding is defined as driving any amount over the posted speed limit, driving too fast for conditions¹, or racing². Driving 25 km/h or more over the posted speed limit would qualify as excessive speeding³.

What is street racing?

Street racing is an extremely dangerous activity which involves speeding, taking risks and aggressive driving. The Criminal Code of Canada defines street racing as "operating a motor vehicle in a race with at least one other motor vehicle on a street, road, highway or other public place⁴" and it is considered a criminal offence. It is an event designed to test the limit of the vehicle, as well as test the skill and the courage of the driver. This event can be semi-organized at designated areas with an audience, or can occur spontaneously on a relatively empty roadway. Racing can also occur at red lights. The light turning green acts as a symbol for the race to begin between the two vehicles stopped at the stop line⁵. In the 2007 Road Safety Monitor (RSM) released by the Traffic Injury Research Foundation (TIRF), survey respondents ranked street racing as the third most serious road safety problem (drunk drivers ranked first and red light running ranked second)⁶.

How common is speeding?

Most speeding data is from self-report surveys. This makes it difficult to calculate how many drivers actually speed because all drivers have a different opinion of what constitutes speeding. For example, going 5-9 km/h over the speed limit may not be considered as speeding by most drivers. That being said, seven out of ten Canadians admit they speed and 2.7 million Canadian drivers reported driving well over the speed limit in 2006⁷.

According to the Canadian Council of Motor Transport Administrators (CCMTA), about 800 individuals were killed and 3,000 seriously injured due to speed-related crashes in 2008⁸. Speed contributes to 18% of fatal and personal injury crashes, which corresponds to 4,000 deaths and injuries a year in Canada that are speed-related⁹. Comparatively, American data shows that speed is a contributing factor in almost one-third of all fatal crashes¹⁰.

Young drivers are at high risk for fatal injury and death due to speed-related crashes and account for a disproportionate number of drivers involved in such crashes. Transport Canada reports that from 2002-2004, 40% of drivers in fatal crashes involving speeding were aged 16-24¹¹.

BEHAVIOURS

Does speeding increase crash risk?

Yes. There is very strong evidence which shows that speed increases crash risk. For instance, a 1% increase in speed increases a driver's fatality risk by 4%-12%. An increase of the speed limit by 15 km/h on a road increases the fatality rate of drivers by 10%¹². The risk of being involved in a severe crash is twice as great at 65 km/h than it is at 60 km/h¹³. We can conclude from these statistics that even a small increase in a driver's speed can lead to a much higher crash risk, which shows how important it is to respect the posted speed limits and to adjust your speed according to road conditions.

How does speeding increase crash risk?

Speeding affects several aspects of driving. First it limits the amount of time a driver has to react to a change in the environment. For example, if something were to jump out on the road while a driver was driving the speed limit, the driver would have more time to react before the vehicle reached the object than if the driver were speeding. Higher speeds leave less time for the driver to react before the vehicle reaches the object. Second, the faster a vehicle is traveling the longer the distance the driver needs to come to a stop. It will take longer for a vehicle traveling 120 km/h to come to a safe stop than it would for a vehicle traveling 100 km/h. Finally, speed reduces the driver's ability to steer safely around road curves

1 Vanlaar et al. 2008

2 GHSA 2012

3 Vanlaar et al. 2008

4 Department of Justice Canada 2012

5 NHTSA 2006

6 Vanlaar et al. 2008

7 Vanlaar et al. 2008

8 CCMTA 2008

9 Beirness and Simpson 1997

10 GHSA 2012

11 Transport Canada 2008

12 Vanlaar et al. 2008

13 Diamantopoulou et al. 2003

and objects on the road. The faster a vehicle is traveling, the less control a driver has over its manoeuvrability. Any of these effects alone would make it difficult for a driver to avoid a crash, but by combining these effects, speed becomes a deadly force working against a driver¹⁴.

Does speed increase the severity of a crash?

Yes. As a vehicle travels, energy is created and the faster a vehicle travels the more energy it produces. The vehicle is designed to absorb this energy in the event of a crash, but there are limits to how much a vehicle can absorb. If this threshold is exceeded, which is often the case in high speed crashes, then safety features such as seatbelts and air bags are less able to reduce the impact of a crash, which in turn threatens the safety of the occupants inside¹⁵.

What are common characteristics of speed-related crashes?

Although speed-related crashes can occur at any time and under any circumstances, there are some characteristics that are common for such crashes. They often involve one vehicle, with one risk-taking driver and the vehicle has either run off the road, hit an object or person, or was in a head on crash. These crashes generally occur between 3 pm and 9 pm, in good weather with normal road conditions and in the darkness or with little light¹⁶.

Who is most likely to speed?

Although all types of drivers have been known to speed, young drivers and male drivers are over-represented in speed-related crashes. Other common behaviours or traits of drivers who speed include:

- > Performing risky-driving behaviours (not wearing a seatbelt, invalid licence);
- > Driving more kilometres than those who do not speed;
- > Having confidence in their driving, regardless of their speed;
- > Having previous speeding violations¹⁷; and,
- > Lacking knowledge of the risks of speeding¹⁸.

What influences young drivers to speed?

External influences play a major role in developing the behaviour of young drivers. The 'need for speed' has become a common trend in the media. For instance, several fast paced car movies are popular among the younger demographic (e.g., *Fast and the Furious*, *Gone in 60 Seconds*, *Drive*) which glorify the fun and excitement of speeding and racing. There are rarely any repercussions faced by the actors in these movies (such as death, jail time), giving young drivers the impression that the negative consequences of speeding are unlikely.

Another important influence is passengers of similar age to the young driver (such as friends or a significant other).

Of the young passengers who were killed in speed-related crashes between 2002 and 2004, 80% were in a vehicle with a driver of the same age¹⁹. Passengers can distract or disrupt a driver through conversation or music or by verbally encouraging them to perform dangerous moves, such as speeding. Even if the passengers remain silent, the fact they are in the vehicle can be enough to influence the driver²⁰. Whether it is a young male trying to impress his girlfriend by driving aggressively or a young female speeding in order to appear adventurous in front of her friends, the presence of young passengers can cause young drivers to behave differently than they would if they were driving alone.

ATTITUDES, CONCERNS AND PERCEPTIONS

What do Canadians think about speeding?

The opinions of Canadians about speeding are in contrast to their actual speeding behaviours. Although 70% of Canadians admit to speeding, a majority state that they are greatly concerned about the issue. The 2007 *Road Safety Monitor* found that excessive speeding is considered a very or extremely serious problem by 68% of Canadians. Canadians also appear to be aware of the risks associated with excessive speed. According to 81% of survey participants, excessive speeding will cause a crash and 92% of survey respondents agreed that speeding affects the severity of the crash²¹.

Why do a majority of Canadians still speed?

It is common for people to overestimate their skill as a driver and many drivers assume they can handle themselves better while speeding than other drivers on the road. This is why speeding is an issue that concerns drivers but they are still comfortable speeding themselves.

Drivers also assume speeding will significantly reduce the amount of time it takes to get to their destination, which isn't necessarily the case²². For example, if a driver needs to get to a destination 40 km away, and the speed limit is 70 km/h then the journey will take 34 minutes. If the driver decides to speed and drive 80 km/h, increasing their risk of crashing by at least 60%, then they will get to their destination in 30 minutes²³. If drivers were aware of this, they likely would conclude that shaving a meagre four minutes off of travel time is not worth a 60% increase in their chances of crashing, resulting in potential injury or death.

What reasons do young drivers give for speeding?

In a focus group conducted in the United States, teen drivers were asked why they speed. Teens did not actually consider driving five or ten miles (up to 15 km/h) over the speed limit as speeding. One reason they gave for speeding was to keep up with traffic, which they claimed was something their driver education teacher told them to do. Others said because they were late, that it gave them a rush or that the speed limits are

14 Vanlaar et al. 2008

15 IIHS 2008

16 Transport Canada 2008

17 Vanlaar et al. 2008

18 Transport Canada 2007

19 Transport Canada 2008

20 Horvath et al. 2012

21 Vanlaar et al. 2008

22 Peer 2010a

23 Peer 2010b

too low. They justified their behaviour by pointing out that they only sped when there was no one else on the road and they considered themselves skilled enough to handle driving their vehicle at high speeds.

A reason the male respondents listed for *not* speeding was out of fear of hitting some one, especially a small child. This fear caused them to slow down in neighbourhoods or residential areas and when it was in middle of the day (a time when children may be near roads). Females claimed they sped less at night partly because it was dangerous and partly because it was harder to spot police. Males were more likely to speed with friends in the vehicle and females were less likely to speed with children or young siblings in the vehicle²⁴.

LEGISLATION

Are there federal speeding laws?

No. However, there is a federal law stating that street racing is a criminal offence. Any person who is caught street racing can face up to five years in prison. If they cause bodily harm due to street racing they will face up to 14 years in prison and if they cause death they can be imprisoned for life²⁵.

Are there provincial and territorial laws for speeding?

Yes. Each Canadian jurisdiction is responsible for designating speed limits and setting speeding penalties. Penalties include fines, demerit points and a potential increase in insurance rates. In Ontario, speeding fines are calculated by multiplying the km/h over the limit by a set dollar amount. For example, if a driver is doing 25 km/h over the limit, their fine is calculated by multiplying 25 by \$4.50, resulting in a fine of \$112.50 and they will accumulate three demerit points. Ontario also charges any driver who speeds 50 km/h or more over the limit with street racing, a charge which brings with it a minimum of a \$2,000 fine (up to \$10,000), six demerit points and possible licence suspension and vehicle impoundment²⁶.

Other provinces take speeding seriously as well. Quebec has doubled its fines for any driver who is considered to be 'excessively speeding' (for example, travelling 90 km/h in a 50 km/h zone would result in a \$528 fine and six demerit points²⁷). British Columbia speeding fines range from \$138 to \$483 with three demerit points given²⁸ and Prince Edward Island's range from \$100 to \$1,000²⁹ based on the severity.

SOLUTIONS

What can be done to reduce speeding?

When asked about the extent to which they agree with the use of various measures for dealing with the issue of excessive speeding, 66% of Canadians agreed that speeding should be a higher priority for enforcement efforts and 46%

agreed that the penalties for speeding should be equal to those of drinking and driving³⁰. These results suggest that Canadians want speed laws to be more strictly enforced. The desire for stricter enforcement is consistent with the finding that a majority of drivers' are greatly concerned with the issue of speeding.

Law enforcement is effective in reducing speeding. It has been shown that if a driver is aware there is a high probability of encountering speed enforcement on roadways, they will react by significantly decreasing their speed³¹, which then leads to a decrease in crashes. For instance, data from the Netherlands shows that roads with speed enforcement through mobile radar have had a 21% reduction in serious injuries due to crashes³².

Other potential measures to reduce speeding include electronic signs set up on the roadside which show drivers their speed, or in-vehicle technology that can alert drivers when they are speeding. In a Transport Canada survey, 75% of respondents reported that they felt these self-monitoring measures would be successful in reducing speeding³³. Photo enforcement is also effective in deterring drivers from speeding. Cameras are placed on roadsides to capture images of licence plates of vehicles that are traveling over the posted speed limit. Speeding tickets are sent to the owner of the vehicle³⁴.

What anti-speeding campaigns and programs are available for young drivers?

Project E.R.A.S.E. (Eliminate Racing Activity on Streets Everywhere) was developed over 15 years ago in Toronto, Ontario to address the problem of street racing. Officers from 22 different police services, the Ontario Ministry of Transportation and the Ontario Ministry of Environment have collaborated to target the issue. The goal of the campaign is to change driver behaviour through education and strategic enforcement, which will reduce the instances of street racing and other aggressive driving behaviours. The program highlights how innocent people who are uninvolved in the activity of street racing are killed due to street racing every year (45 deaths since 1999).

Information on Project E.R.A.S.E. can be found at:
www.yrp.ca/erase

Another campaign, SMARTRISK, strives to decrease speeding by targeting new drivers before and during the learning process of driving so they can develop safe driving habits at the outset. This is achieved through school or community presentations that highlight the terrible consequences of aggressive driving and unsafe behaviours to avoid on the road, such as speeding. SMARTRISK responds to the notion that teenagers believe they are invincible and unstoppable. The initiative hopes to help young people discover that their

24 NHTSA 2006

25 Department of Justice Canada 2012

26 Government of Ontario 1990

27 SLAQ 2011

28 ICBC 2010

29 Government of Prince Edward Island 2012

30 Vanlaar et al. 2008

31 de Waard and Rooijers 1994

32 Goldenbeld and van Shagen

33 Transport Canada 2011

34 Blakey 2003

passion for living is worth more than reckless impulsiveness. The message is presented in an upbeat and positive manner that encourages young people to have fun and take risks – but smart risks.

Information on the SMARTRISK campaign can be found at: www.smartrisk.ca.

For more information about the Young and New Driver Resource Centre visit: yndrc.tirf.ca

Traffic Injury Research Foundation

171 Nepean Street, Suite 200, Ottawa, ON K2P 0B4

Phone: (877) 238-5235 Website: tirf.ca

Registered Charity No. 10813 5641 RR0001

References

- Beirness, D.J., and Simpson, H.M. (1997). Study of the Profile of High-Risk Drivers. TP-13108. Ottawa, Ontario: Transport Canada, Road Safety and Motor Vehicle Regulation.
- Blakey, L.T. (2003). Red-light cameras: Effective enforcement measures for intersection safety. *Institute of Transportation Engineers* 73(3): 34-43.
- Canadian Council of Motor Transport Administrators (2008). Road Safety Vision 2010: Progress Report. Ottawa, ON: CCMTA.
- de Waard, D. Rooijers, T. (1994). An experimental study to evaluate the effectiveness of different methods and intensities of law enforcement on driving speed on motorways. *Accident Analysis and Prevention*. 26(6): 751-765.
- Department of Justice Canada. (2012). The Criminal Code of Canada. Retrieve from: <http://laws-lois.justice.gc.ca/eng/acts/C-46/FullText.html#h-82>.
- Diamantopoulou, K., Hoareau, E., Oxley, P., Cameron, M. (2003). The Feasibility of Identifying Speeding-Related and Fatigue-Related Crashes in Police Reported Mass Crash Data. Monash University Accident Research Center. Report #: 197.
- European Conference of Ministers of Transport (ECMT). (2006). Young Drivers: The Road to Safety. Organisation for Economic Co-operation and Development. Paris, France.
- Goldenbeld, C. van Shagen, I. (2005). The effect of speed enforcement with mobile radar on speed and accidents: A evaluation study on rural roads in the Dutch province Friesland. *Accident Analysis and Prevention*. 37(6): 1135-1144.
- Governors Highway Safety Association (GHSA). (2012). Survey of the States: Speeding and Aggressive Driving.
- Government of Ontario (1990). Highway Traffic Act. Service Ontario E-Laws. Retrieved From: <http://www.search.e-laws.gov.on.ca/en/isysquery/869fa199-c621-4d65-849a-0f2a96b6beb5/1/doc?search=browseStatutes&context=#hit1>.
- Government of Prince Edward Island. (2012). Highway Safety Act. Retrieved from: <http://www.gov.pe.ca/law/statutes/pdf/h-05.pdf>.
- Horvath, C., Lewis, I., Watson, B. (2012). Peer passenger identity and passenger pressure on young drivers' speeding intentions. *Transportation Research Part F*. 15: 52-64.
- Insurance Corporation of British Columbia (ICBC). (2012). Fines and penalty points for B.C traffic offences. Retrieved from: <http://www.icbc.com/driver-licensing/tickets/paying-disputing/chart-offenceswithfines>.
- Insurance Institute for Highway Safety (IIHS). (2012.) Q&A: Speed and Speed Limits. Speed. Retrieved from: http://www.iihs.org/research/qanda/speed_limits.aspx
- National Highway Traffic Safety Administration (NHTSA). (September 2006). Teen Unsafe Driving Behaviours: Focus Group Final Report. DOT HS 810 670. U.S Department of Transportation. Washington, DC.
- Peer, E. (2010a). Speeding and the time-saving bias: How drivers' estimations of time saved in higher speed affects their choice of speed. *Accident Analysis and Prevention*. 42(6): 1978-1982.
- Peer, E. (2010b). Exploring the time-saving bias: How drivers misestimate time saved when increasing speed. *Judgement and Decision Making*. 5(7): 477-488.
- Societe de l'assurance automobile Quebec (SLAQ). (2011) Road Safety: Excessive Speeding: Harsher Penalties. Retrieved from: http://www.saaq.gouv.qc.ca/publication ns/prevention/excessive_speeding.pdf.
- Transport Canada. (2007). Transport Canada: Driver Attitudes to Speeding and Speed Management: A Quantitative and Qualitative Study. Final Report, TC-1002461.
- Transport Canada. (2008). A Quick Look at Speeding Crashes in Canada. Road and Motor Vehicle Safety. Retrieved from: <http://www.tc.gc.ca/eng/roadsafety/tp-tp2436-rs200807-menu-158.htm>.
- Transport Canada. (2011). Road Safety In Canada. Road Safety and Motor Vehicle Regulation. Retrieved from: <http://www.tc.gc.ca/eng/roadsafety/tp-tp15145-1201.htm#s32>.
- Vanlaar, W., Robertson, R., Marcoux, K. (2008). The Road Safety Monitor 2007: Excessive Speeding. The Traffic Injury Research Foundation. Ottawa, Canada.