Parachute
PREVENTING INJURIES. SAVING LIVES.

What's Speed Got To Do With It?

Pace Car Community Fact Sheet

Driver Speed

Pedestrians, including children, may be more likely to be struck by a car in areas with higher speed limits[1]. In fact, there is a direct correlation between an increase in vehicle speed and an increase in injury risk[2]. For every one per cent increase in average travel speed, there is a four per cent increase in the risk of a fatal crash and a three per cent increase in the risk of a serious crash[3]. A pedestrian struck by a car traveling at 50 km/hr is eight times more likely to be killed than a pedestrian struck at 30 km/hr[4]. Reducing the speed limit can make a significant difference in these preventable injuries and deaths. For example, a five per cent reduction in average speed has been shown to reduce fatalities by 30 per cent[5]. 30km/h remains the recommended speed limit for all residential areas and areas with high pedestrian activity[6], as a lower speed limit decreases the time drivers need to slow down or stop, and allows pedestrians to make better decisions and travel about safer[7].

Children are more likely to be struck by a car in areas with higher speed limits[1]. In fact, there is a direct correlation between an increase in vehicle speeds and the increase of the risk of injury. A pedestrian struck by a car traveling at 50 km/hr is eight times more likely to be killed than a pedestrian struck at 30 km/hr and even small reductions in speed can be significant. For each 1.6 km/hr reduction in average speed, collision frequency is reduced by five percent. Reducing vehicle speed has been proven to be effective in preventing crashes and reducing the severity of injuries[2]. At a speed of 30 km/hr, vehicles and pedestrians are able to co-exist with relative safety, which means that drivers have sufficient time to stop for pedestrians, and pedestrians can make better crossing decisions.

Changing Attitudes and Behaviours

Pedestrian safety is each driver's responsibility. Children's physical and mental capacities are still developing well into their teens and they are often unable to make safe judgments about pedestrian safety. Drivers must be prepared for children to act like children.
Unfortunately, speeding is common in Canada. According to the Traffic Injury Research Foundation, about 2.7 million Canadians admit to habitually driving well over the speed limit; 2 million admit to frequently accelerating to get through a traffic light and about 670,000 say they take risks while driving, just for the fun of it[8]. And it is significant that drivers are unable to accurately assess their own speed while they are driving and, as a consequence, make few adjustments in the presence of children[9].

Mechanisms that alert speeding drivers can be very useful and according to Transport Canada, 72 percent of Canadian drivers endorse roadside warning signs to tell them when they are speeding[10], and driver feedback signs have been shown to reduce speed by up to 12 km/h in some areas[11]. In addition, a combination of speed cameras and fines can enforce speed limits in

residential areas and school zones. One study illustrates that when these strategies are in place, the number of vehicles traveling more than 10 km/hr over the speed limit actually dropped by 62 per cent, and there was a 10 per cent reduction in average speed in these areas[12]. Speed limit reductions in countries such as South Africa, Belgium, Finland, France, Germany, New Zealand, United Kingdom and the United States, have demonstrated that when a speed limit was reduced, there was a decline in road crashes ranging from eight to 40 percent[13].

Changing Environments - Traffic Calming

Environmental or physical characteristics can either encourage or discourage speeding and can greatly influence the frequency and severity of pedestrian-related crashes. Traffic calming measures are associated with less pedestrian injury, and implementing traffic calming measures in key areas, such as schools and residential neighbourhoods, can help reduce both driver speed and injuries[14,15]. For example, reducing the speed limit to 30km/h in a UK residential neighbourhood saw a 67% reduction in crashes with child pedestrians and cyclists, and an overall speed reduction of 15km/h[16]. Traditional traffic calming approaches include introducing speed bumps, road narrowing, or adding pedestrian islands or curb extensions (bulb-outs).

It is also important to note that an increase in the number of pedestrians results in fewer pedestrian injuries. This is because when motorists see people out and about, they adjust their driving behaviour by slowing down- perhaps unconsciously[17]. Due to growing concerns about air quality and climate change in general, we may see a renewed enthusiasm for walking over driving, leading to an increase in pedestrian numbers, which in turn will improve safety.

Many communities across Canada are looking at methods to slow down the traffic that travels through their residential neighbourhoods, either by advocating for posted speed limit changes, initiating strategies to target driver behaviour (i.e. Pace car), or by implementing physical changes. All these approaches help to create a new awareness of the impact of speed, the importance of being mindful of pedestrians, and being conscious of one's own driving habits.

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