

Why are SUVs and pick-up trucks a threat to road safety?

Taller, heavier, deadlier.

Collisions between a vulnerable user and a pick-up truck or a large SUV are both more likely to occur and to result in severe or lethal injuries than with a car.⁹

Personal safety at other's expense



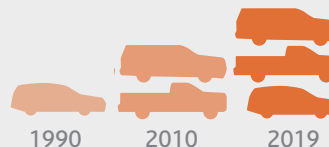
For each life saved by being in a light truck,

4,3 pedestrians, cyclists and opposing car occupants would be killed.⁸



2 to 3 times deadlier for pedestrians and cyclists²
eighth times more lethal against children¹

A growing threat



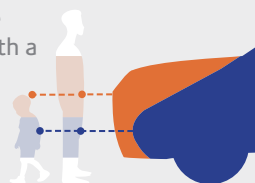
Pickup and SUV sales have tripled in thirty years in Quebec to reach 85%, or 6 out of 7.⁶

This trend brought the light truck share from 30% to almost half in just a decade.⁷

Tall and blunt front ends are associated with a

45 %⁵

increase in pedestrian fatality risk



Taller

The front grill height is the single most pressing issue in light trucks to vulnerable road users, because of a **higher leading edge**. A light truck is therefore more likely to hit the upper body, or even the head, making a collision more likely to cause serious injury or death. Children are particularly vulnerable to every extra centimetre of height.

A higher stance also reduces the impression of speed, encouraging greater speed, which is exponentially more likely to cause serious injury or death.³

adding just

10 cm =
of front end



+22 to 28 %
more lethal to cyclists and pedestrians

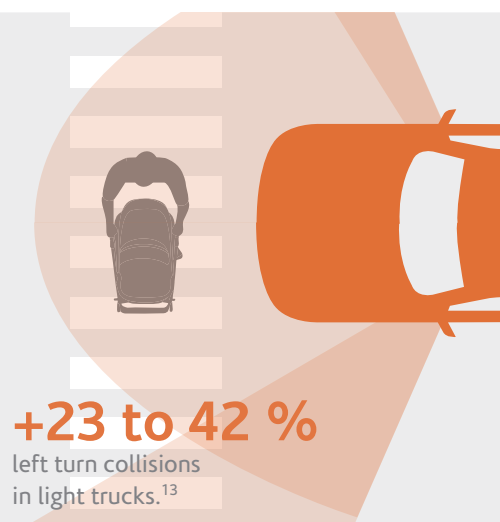
+81 %
more lethal against children on foot.⁴

Heavier

The weight of the vehicle is proportional to the collision energy, which increases lethality for everyone outside the vehicle, whether it's occupants of a smaller car, a motorcycle, a cyclist or a pedestrian.

Between 2001 et 2019, the average vehicle weight increased from 1300kg to 1613kg⁹, roughly equivalent to adding the weight of five people. The trend is accelerating due to the popularity of light trucks and the electrification of vehicles, which are often 30% heavier than their internal combustion counterparts.¹⁰

+100 kg
+ 6 à 14 %
fatality¹²



+23 to 42 %
left turn collisions in light trucks.¹³

More frequently involved in a collision

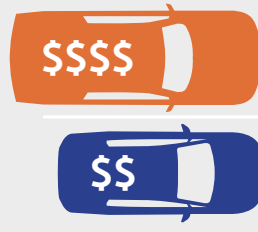
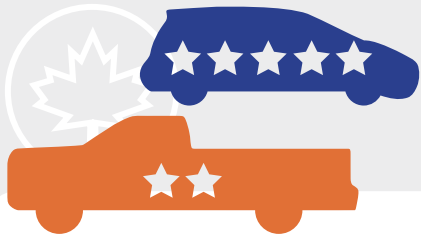
Light trucks generally suffer from obstructed visibility due to higher hood heights, wider windshield pillars (A-pillars) and even wider rearview mirrors - which can create blind spots when turning.

In Montreal alone, the blind spot created by A-pillars was associated with ten pedestrian fatalities in three years and 13 of the 15 reported left-turn collisions involved a light truck.¹¹

Additionally, a taller, straighter hood can completely conceal children, and sometimes even adults.

Recommendations

There are many ways to improve vehicle safety and curb the proliferation of light trucks. From the federal government to the individual, **every decision adds up**.



1) Vehicle standards that includes vulnerable users

Ensuring the safety of occupants **must not be at the expense of people outside the vehicle**. The federal government has several measures at its disposal to promote and guarantee safe vehicles, following international best practices and academic literature :

- Assess and compare vehicles using **crash tests**.
- Modify **safety standards** for automakers in accordance with Vision Zero. Current standards are restrictive and regulated to protect occupants, but do not extend to people on foot, on bicycles or in other vehicles.
- Create a **safety rating system** to facilitate comparisons between different models and promote safe vehicles for all.

The European crash center, EuroNCAP, already includes a range of tests for collisions involving vulnerable road users since 1997.¹⁵ These tests led to a widespread requirement for a number of technological driving assists effective 2022¹⁶, as well as maximum obstruction angles.¹⁷

2) Modulated rates for larger vehicles

In addition to increased road safety risks, SUVs and pick-up trucks generate more pollution¹⁸ and take up more room, resulting in **greater societal costs** than other vehicles. Fees targeting large vehicles thus encourage socially responsible decisions in a fair manner.

Local : parking permits

Various Montreal neighborhoods¹⁹ already charge parking permits on the basis of vehicle weight or engine size.

«In our neighbourhood, the increase in car size has led to a loss of between 4,000 and 10,000 parking spaces, i.e that's between 10% and 25% of the total. An F-150 occupies the space of two Yaris on the street. We have to take this into consideration».

François Limoges, Borough mayor of Rosemont-La Petite Patrie, which charges between \$115 and \$205 for the sticker, according to vehicle weight.

Provincial : registration fees

In Quebec, registration fees for large-engine vehicles range from \$40 (> 4 l) to \$423 (> 7 l). Modulating the registration fee **according to weight** would be advisable, following the example of the Washington, D.C., which has an annual registration fee of between \$72 and \$500.

Federal or provincial : sales tax

Tax applied at the time of purchase is the **most effective disincentive**. Large engines are already subject to a sales tax in Quebec²⁰ and in Canada,^{21,b} but its application too restricted to be effective. France, on the other hand, charges between 10 and 30 euros for every kilogram over 1600 kg, reaching up to \$40,000 for the heaviest models.^c

3) Institutional and corporate purchases of safe vehicles

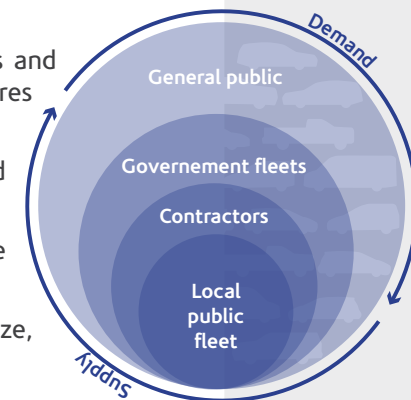
The population should expect the safest vehicle to be the preferred choice for institutional purchases, which may also reduce the high purchase and operating costs of larger vehicles.

This emphasis can also be extended to brand-aware companies, as well as suppliers and partners of public organizations, for enhanced impact. For instance, Montreal requires side barriers on heavy goods vehicles.²²

Promoting safe vehicles **preaches by example and feeds a virtuous circle** of demand that eventually influences the mainstream offering.

Although some functions require light trucks, they should not be the automatic choice for bulk purchases, and may be upgraded with additional safety features.

The City of New York requires a list of assisted driving features according to vehicle size, prioritizing safety for its 21,000 fleet vehicles and the 60,000 of its contractors.²³



^b The federal excise tax on fuel-inefficient vehicles can reach \$4,000, but only applies to gasoline consumption of 13 l/100 km or more. In Quebec, fees vary from \$58 to \$232 for a displacement of 4 to 6 liters or more, and are added to the cost of registration, depending on engine size.

^c In France, a large pickup truck weighing 2,670 kg incurs a penalty of 25,130 euros¹⁴, or approximately \$40,000, in addition to an environmental penalty of up to 60,000 euros.

Acting coherently

The growing popularity of large SUVs and pick-ups is incoherent with our objectives and investments in active transportation, climate change adaptation and energy transition, and requires reversing this trend.

Other measures to consider

Advertising regulations

Automotive advertising shapes consumer preferences and is key to the growing popularity of large vehicles.

All French car ads, regardless of format, must include a standardized GHG emissions scale, a message promoting sustainable mobility and the slogan #SeDéplacerMoinsPolluer [*getting around, polluting less*]. Advertisements for polluting vehicles will even be entirely banned by 2028.²⁴

Prohibit (and enforce) dangerous tuning

Lifting kits, tinted front windows and bull bars make vehicles significantly more dangerous. While a number of these modifications are already prohibited, penalties are so rarely imposed that they fail to deter offenders.²⁵

Light trucks carsharing

Government and corporate large vehicles can be shared with the local population to provide for occasional heavy-duty needs, alleviating the need for a larger vehicle. Dozens of municipalities in Quebec are already sharing their vehicles via a web platform known as SauVÉR.²⁶

Differentiate between light trucks and cars in crash statistics

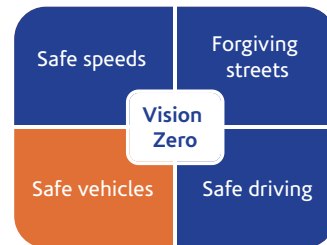
Detailed collision data is essential for an accurate understanding of trends specific to the province or region.

No Vision Zero without safe vehicles

A **safe vehicle** is one in which good visibility and design reduce the likelihood of collision and the risk of serious or fatal injury, both inside and outside the vehicle.

Safe vehicles are one of the aspects that need to be addressed alongside road design and speed control to reduce the number of injuries and fatalities on the road network. **Piétons Québec** has several tools for raising awareness or implementing a safe system within Vision Zero [French only].

Government road safety action plans usually advocate a vision-zero approach to safety, but safe vehicles are often limited to heavy-duty vehicles. While the hazards associated with heavy goods vehicles and the value of securing them are well understood, more awareness is needed when it comes to the risks associated with pickup trucks and large SUVs.



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For further information

You can **compare vehicles** on the basis of their safety, environmental footprint and long-term cost in a tool developed by Équiterre.

<https://www.equiterre.org/fr/initiatives/pas-de-vus-pour-moi>

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