



Transport
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Seat Belt Sense



What YOU need to know
about seat belts, air bags
and child restraints



Canada 

The Case for Restraints: What you need to know about seat belts, air bags and child restraints

Canadians are among the most mobile people on earth. This enormous country has 900,000 kilometres of roads, 22 million licensed drivers and 20 million registered vehicles. But a heavy price is being paid for that mobility.

Over the last 10 years, more than 30,000 people have died in motor vehicle crashes in Canada. These crashes generally don't grab national headlines. Unless you've lost a friend or family member, you might not even hear about them, but there are thousands of fatal collisions...year after year after year.

If Canadians understood more about how and why these deaths involving motor vehicle crashes occur, perhaps we could take better precautions to prevent them. What, then, are the facts?



Alcohol and drug impairment is the biggest killer on our roads. Approximately one third of all drivers killed in Canada had been drinking. Of these, many were under 35 years old, were not wearing their seat belt and died after having been ejected from the vehicle in a single vehicle crash.



About 22% of fatalities can be directly attributed to speeding.



Failure to obey signs and lights at intersections accounts for 20% of deaths.

In other words, if you obey traffic signs, drive at the speed limit and don't drink and drive, you could save your life or someone else's. However, even if you take these precautions, you can't control everyone else's behaviour on the road.

So, what can you do? There is one choice you can make that will dramatically increase your chances of surviving a crash, regardless of who is driving the other vehicle.

A good news story

Since 1998, the number of deaths on our roads has been reduced to fewer than 3,000 a year, compared to the mid-1970s, when more than 6,000 Canadians were dying each year. This reduction can be attributed to a number of factors, including new motor vehicle safety standards, improved highway engineering and four-lane divided highways, increased enforcement of traffic laws, and changes in public attitudes toward road safety issues.

In addition, since the early 1970s, Transport Canada has required that seat belts be fitted in all new motor vehicles in Canada. The provincial and territorial governments all have legislation requiring the use of seat belts and child restraints.

Today 93% of Canadians use their seat belts. Each percentage increase in the national seat belt wearing rate has helped to reduce the number of motor vehicle fatalities.

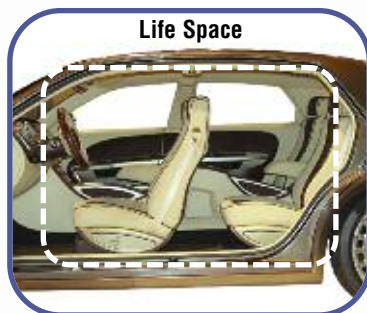
The 7% of Canadians not wearing seat belts account for almost 40% of fatalities in vehicle collisions. Ensure that you wear your seat belt properly, and that everyone else in your vehicle is protected by a seat belt or child restraint.

Seat belts save about 1,000 lives a year in Canada.

Protection begins with motor vehicle safety standards

New Canadian motor vehicle safety standards continue to improve the safety of vehicles. Over the years, new standards have led to the creation of an engineered “life space” within the occupant compartment of motor vehicles.

The occupant life space in your vehicle is like a protective box or cocoon. More and more this life space is designed and constructed to withstand the force of many impacts. Air bags, collapsible steering columns, padded dashboards, reinforced beams and doors, stronger seats and anchorages, and head restraints, have all transformed today’s car, light truck and van into safer vehicles. At the moment of a collision, these safety devices all work together to preserve the life space of the occupants.



How effective are these standards?

The protection of the occupant compartment is continually being verified using standardized tests for the Canadian fleet. These tests represent the forces you would experience if you drove your car head-on into a wall at 48 kilometres per hour. Your vehicle's design ensures that you still have life-saving space left over after the crash. This space dramatically improves your chances of enjoying the rest of your life...

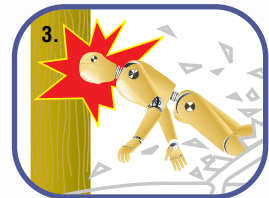
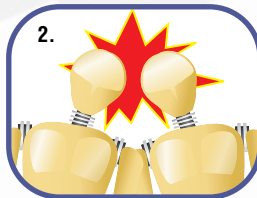
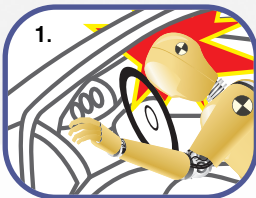
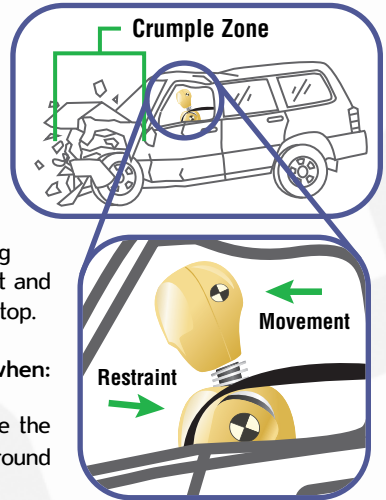
...but only if you are wearing your seat belt.

The reasons are simple:

In a collision, the vehicle's front end crumples or crushes to absorb the energy of the crash and protects the shape and form of the life space. On impact, all occupants and objects in the life-saving space move toward the point of impact. The seat belt and air bags will work together to bring you to a gentle stop.

If unrestrained, you face serious injury or death when:

1. You hit something inside the vehicle. It could be the steering wheel or the reinforced pillars that surround the windows and doors.
2. Something or someone else hits you. Any unrestrained passenger becomes a projectile that moves toward the point of impact. Anyone in the way can be crushed.
3. You are thrown from your vehicle. You crash land on the pavement, smash into a rock or pole, or are hit by another vehicle.



The Total Protection Package

Seat belts and air bags

Every car on the market today must have seat belts. Just about every vehicle you get into today comes equipped with front air bags, and more and more vehicles have side air bags or side curtains. All of the systems are aligned to work together assuming you are wearing your seat belt.

What you need to know to make an informed decision



The air bag is a proven and effective safety device, but it doesn't replace a seat belt.

A properly secured seat belt offers you the best protection in head-on, side and rollover collisions by securing you in the life space of the vehicle.

Front air bags help you only in the event of a frontal collision by preventing the head from hitting the steering wheel and the front passenger's head from hitting the dashboard. But, front air bags won't prevent ejection from the vehicle, and they won't prevent other occupants from crashing into you.



In a side-impact collision, seat belts, side air bags and side curtains increase your chances of survival.

Remember that, in a frontal collision, the front end acts as a cushion to help absorb the impact of the crash and protect the shape of the life space in your vehicle. In side impacts, however, only the thickness of the door and the strength of the side-beams stand between you and the vehicle that hits you. In fact, the side impact is the most dangerous threat to the integrity of your passenger compartment. In a crash, your head will move toward the point of impact. At this moment, the side curtain deploys to cover the inside of the window and help prevent injury to your head.

Don't believe you can escape the consequences of a side impact by being unbelted. The reality is that on impact you move toward the point of impact – not away. And all unrestrained occupants will be moving inside the life space putting others at risk.



The combination of a seat belt and an air bag increases your protection.

Studies have shown that the combination of seat belts and air bags is effective in preventing serious head injuries and serious chest injuries (in adults).

Together, seat belts and air bags offer good protection in most collisions as long as the passenger compartment is not badly crushed.

To be effective, seat belts, air bags and child restraints must be used properly.

Seat Belts

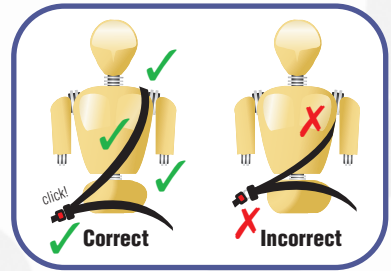
The lap and shoulder belt must be properly adjusted.

In a collision, large forces are at work. In order to minimize the effects of these forces on vehicle occupants, automotive engineers design seat belts to hold drivers and passengers securely in their seats, allowing them to ride out the crash and avoid major contact with the vehicle interior.

When lap and shoulder belts are used properly, they spread the collision forces over the stronger areas of the body's skeleton.

Steps to success

1. Buckle the seat belt, making sure the latch clicks firmly into place.
2. Adjust the lap belt so that it fits snugly across your hips and not your abdomen.
3. Make sure the shoulder belt retracts so that it fits snugly across your chest and over your shoulder.



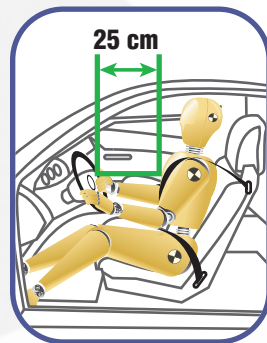
4. Never wear your shoulder belt under your arm. In a collision, your upper body will pivot forward and your head will strike the vehicle interior. The belt will press into your abdomen and likely cause serious or even fatal injuries to internal organs.
5. If you're pregnant, take extra care when adjusting your seat belt. Sit as upright as you can, and wear the lap belt under your abdomen and as low over the hips as possible. The shoulder strap should go between your breasts and off to the side above your belly.
6. The seat belts are less effective if they are not properly fitted. Bulky winter clothing or large body types can pose a particular risk. Always try to place the lap belt below the bottom edge or fold of a winter jacket or below the lowest part of your belly so that it sits closer to the lap than to the belly button.
7. The shoulder belt found in the front seat can be adjusted in height to improve the fit.

Air bags

Air bags cushion the head as it moves forward or sideways after impact. However, they expand with explosive speed – more than 300 kilometres per hour – and they open faster than the blink of an eye. As a result, a deploying air bag can cause injuries if you are not properly positioned or restrained.

While most of these injuries consist of minor bruises and abrasions, some can be serious or even fatal. You can reduce the chances of injury if you:

- Always wear a properly adjusted seat belt.
- Adjust the vehicle's front seat as far back as possible to give the air bags as much room as possible in which to inflate. The distance between the centre of your chest and the steering wheel should be at least 25 cm.
- If your vehicle has air bags, especially side air bags or curtains in the rear, keep the space between you and the air bag clear so that objects aren't pushed towards you when the air bag inflates.



Child restraints

Front and side air bags can be dangerous to young passengers.

Children are protected by seats specifically designed for them. There are four stages to properly protect children as they grow older, according to the child's weight and height:

- Rear-facing infant seats · Forward-facing child seats · Booster seats · Seat belts

Basic guidelines on positioning child restraints

- Avoid the dangers of a front air bag by always placing children, 12 or younger, in the rear seat in properly secured child restraints.
- Keep kids a safe distance from side air bags.
- Don't let toys, blankets or other objects get between your child and an air bag.
- Children who are leaning against a side air bag when it inflates are at risk of serious injury. Children who are secured in an age-appropriate, correctly installed child restraint, positioned away from the inflation path of the side air bag, are not at risk of serious injury.

For more detailed information on these four stages and how to best transport your children safely please contact Transport Canada.
 (www.tc.gc.ca/roadsafety/childsafety/menu.htm)

The bottom line – Ultimately, your safety is your choice.

- Drive defensively
- Watch out for the other driver
- Do not speed
- Refuse to drink and drive
- Secure everyone properly in your vehicle

That is the role you play in reducing the number of deaths and serious injuries on Canadian roads, and in protecting yourself and your family.

So you still think seat belts aren't for you?

Maybe you're special. Maybe you're the best driver who ever lived. Maybe you'll never cross paths with a drunk driver and you'll see every slippery patch on the road. Maybe you don't mind paying the fines. Maybe you don't have a family or care what happens to you.

That's a lot of maybes. But consider the following:

- The 7% of Canadians not wearing seat belts account for almost 40% of fatalities in vehicle collisions.
- The proper use of seat belts and child restraints is the law in all provinces and territories. Not using them properly may result in fines, demerit points or a reduction in insurance settlements.
- Using a seat belt could prevent damage and disfigurement to your face in the event of a crash.
- Think about what it would mean to your family and friends, if you were killed or disabled for life, when the situation could have been avoided if only you had worn your seat belt.
- If you think it's your right not to wear a seat belt because it doesn't hurt anyone else, think again. Unbelted, you could crush and kill someone else in the vehicle, even someone you love.
- You can protect yourself and reduce the impact on emergency rooms caused by unnecessary injuries if you wear your seat belt.

To find out more about national road safety programs and initiatives or if you have questions on any aspects of motor vehicle safety standards, including occupant restraints and child restraint systems, contact Transport Canada at:

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Road Safety Vision 2010

Making Canada's Roads the Safest in the World