

Safety Devices in Vehicles

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First, a few sobering statistics...

Injuries

- More than **2.2 million drivers** and passengers were treated in emergency department as the result of being **injured in motor vehicle crashes in 2018.**
- **Young adult drivers and passengers (18-24)** have the **highest crash-related non-fatal injury rates of all adults.**


Deaths

- A total of **22,697** drivers and passengers in passenger vehicles **died in motor vehicle crashes in 2018.**
- **More than half** (range: 51%-60%) of teens (13-19 years) and adults aged 20-44 years who died in crashes in 2018 **were not buckled up at the time of the crash.**

Statistics Source: <https://www.cdc.gov/transportationsafety/seatbelts/facts.html>

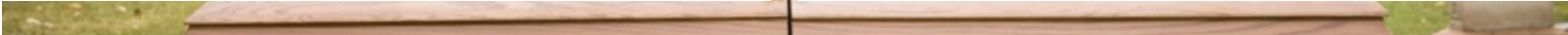


More Facts ...



In 2019, about seven teens died EVERY DAY due to motor vehicle crashes, and hundreds more were injured.

In 2019, the motor vehicle death rate for male drivers aged 16–19 was over two times higher than the death rate for female drivers of the same age.



The presence of teen or young adult passengers increases the crash risk of unsupervised teen drivers. This risk increases with each additional teen or young adult passenger.

Crash rate for 16 year olds is approximately 1.5x higher than 18-19 year olds.
Crash rate is especially high during 1st month after receiving license



Statistics Source: https://www.cdc.gov/transportationsafety/teen_drivers/teendrivers_factsheet.html

So who is responsible for your safety?



Once you get behind the wheel, **YOU** are responsible for the safety of everyone in the vehicle. It is up to **YOU** to make sure that **YOU** are in complete control of your driving situation.

How do you keep yourself and passengers safe?

As the driver, you must make sure that you are both physically and mentally prepared to operate your vehicle on the roads.

Preparedness also includes having a **thorough knowledge** of your vehicle's safety devices.

Some safety features are now federally mandated as standard equipment. These features are to be included in the production of all vehicles built in the United States.



Standard Car Safety Technology

SEATBELTS

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Hospital study showed 4 out of 5 (80%) car seats are installed incorrectly but car seat misuse was even higher among new parents, at 93%.

<https://saferide4kids.com/blog/car-seat-statistics/>

SAFETY SEAT SYSTEMS

AIR BAGS

In frontal crashes, front airbags reduce driver fatalities by 29 percent and fatalities of front-seat passengers age 13 and older by 32 percent.

<https://www.iihs.org/topics/airbags...>

ELECTRONIC STABILITY CONTROL

NHTSA estimates ESC would save 5,300 to 9,600 lives and prevent 156,000 to 238,000 injuries in all types of crashes annually once all light vehicles on the road are equipped with ESC.

<https://www.nhtsa.gov/fmvss/...>

NEW Car Safety Technology

As cars evolve, drivers can look forward to advancement in car safety technology.

It's important for all drivers to have a thorough understanding of these advancements and how they can make the roads safer for travel.



Crumple Zones

Cutting deceleration in half cuts the force in half. Therefore, changing the deceleration time from .2 seconds to .8 seconds will result in a 75 percent reduction in total force.

<https://auto.howstuffworks.com/car-driving-safety/safety-regulatory-devices/crumple-zone.htm>



Forward Collision Warning

Around 1.7 million rear-end collisions take place in the U.S. each year.

<https://www.pathwaysbyamica.com/facts-on-fender-benders/...>



Automatic Emergency Brake

87% of rear-end collisions occur because the at-fault driver wasn't paying attention.

<https://www.pathwaysbyamic.com/facts-on-fender-benders/...>



Lane Departure Warning

Distracted driving is dangerous, claiming 3,142 lives in 2019.

<https://www.nhtsa.gov/...distracted-driving>



Safety is Safety



Whether you are driving a car with older safety technology or a new, it is ultimately up to YOU to drive safely for your passengers, yourself, and your fellow drivers.
Know yourself,

Class Discussion Time!

What features would you like invented and why?

Should rear view cameras be allowed in road tests?

Are self-driving cars dangerous?