

**“Fact vs. Reality:  
Common Myths About Driver Safety & Vehicle Crashes**

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**Introduction**

When it comes to driver safety and vehicle crashes, sometimes it is difficult to distinguish what is fact and what is reality. Every person who drives a motor vehicle believes in their heart that they are a “good” driver. In reality this statement is simply not true. Many of these “good” drivers have a tendency to perpetuate myths regarding their own circumstances in order to justify their own driving shortcomings. For example, a driver might make the following statement after becoming involved in a collision – “I struck the vehicle in front of me because my anti-lock brakes didn’t work properly”. The fact of the matter is; their anti-lock brakes worked exactly how they were designed to work. The reason the driver struck the vehicle in front of them was due to the fact that they were traveling too fast. This is where the myth comes into play. The actual reason the “good” driver was traveling too fast was due to the fact that the driver believed that the anti-lock braking system would stop their vehicle quicker. The reality is that anti-lock brakes may not stop you quicker. The system may actually increase your stopping distance. This is an example of one of the myths that will be explored in this paper.

The authors have extensive motor vehicle driver safety histories. Their experiences include the field of motor vehicle crash reconstruction, commercial vehicle leasing, law enforcement and 25 years of experience with helping organizations that have employee drivers in their workforces. While attempting to provide safety training to these drivers, the authors and their associates have had to overcome numerous driver safety myths and misconceptions that many of these drivers have held for years.

## **Separating Myth from Reality**

With the sincere hope of eradicating many of the mistaken beliefs that drivers have, and thereby promoting safety on our roadways, this paper will address many of the most common myths that the authors have encountered.

### Myth #1: You are at less risk of injury in a crash if you are ejected from the vehicle.

Some drivers are under the mistaken belief that, in the event of a crash, you are less likely to be injured if you are thrown clear of the vehicle and away from the crash site. The people who perpetuate this myth may cite an example of their uncle's, neighbor's, third cousin's, brother-in-law who was thrown out of a car uninjured. They typically end their recollection by reverently stating: "He would have been crushed if he had stayed in that car". These examples are typically hearsay at best.

### Myth #1: Reality

In reality the safest place for you during a crash is securely belted inside the vehicle. If you are ejected from a vehicle you are subjected to numerous risks of being injured. The first reality in an ejection crash is; if the person was ejected, they weren't wearing a seatbelt. In the field of crash reconstruction there is a technical term for not wearing a seatbelt – "Bad". If you are not belted you may strike the windshield, steering wheel, the roof, the roof support pillars and other passengers. If you are ejected you will probably strike the door or window frame on your way out. Once outside the vehicle you may then strike the road, a pole, a tree or other vehicles. There is also a high percentage possibility that once ejected, the vehicle that you riding in may strike you. In reality, your chances of surviving a crash are greatly diminished if you are ejected from the vehicle.

### Myth #2: You don't have to wear seatbelts in the rear seat.

People have a tendency to believe that they do not need to buckle up if they are riding in the back seat of a vehicle. They feel that they are away from the windshield and steering wheel and are at much less risk of being injured.

### Myth #2: Reality

In order to first refute this myth see - Myth #1 – Reality. Also, always remember that anything that is loose in a vehicle will become a flying projectile during a crash. People are not excluded from this. The reality of the matter is that, unrestrained passengers seriously injure and kill other passengers. It is a driver's responsibility to make sure that all passengers are buckled up.

### Myth #3: You should not lock your vehicle doors. "They" won't be able to get you out.

There are drivers who believe that you should not lock your vehicle doors while driving. They feel that, in the event of a crash, rescue personnel won't be able to get them out of the vehicle.

### Myth #3: Reality

A door that is locked is far less likely to open during a crash. Whereas a seatbelt will help to keep you from being ejected during a crash, a closed vehicle door may help to prevent your limbs from traveling outside the safe confines of your vehicle. A closed door will also increase the integrity of the vehicle in the event of a crash. Lastly, a locked door may also prevent unwanted persons from entering your vehicle. Many vehicles have systems where the doors lock automatically when the

vehicle is put into gear, or when the vehicle reaches a certain speed. Don't wait for these automatic systems to work. Get into the habit of locking your doors as soon as you enter. This may prevent the bad guys from getting into your vehicle while you are sitting in a parking lot.

Regarding the fear that "they" won't be able to get you out of the vehicle, there really isn't much substance to this. The side glass in vehicles is made with tempered glass. When tempered glass is struck, it crumbles down. If you are involved in a crash that is so severe that you are not able to open your own door, the side glass is probably going to be broken anyway. If not, it can be broken fairly easily. Don't worry; "they" will get you out.

#### Myth #4: My airbag didn't deploy during my crash. There must be something wrong with it.

Some drivers assume that, if their vehicle's airbag doesn't deploy during a crash, there must be a malfunction. Their belief is; if they are in any type of collision the airbag should deploy and provide them additional protection from injuries.

#### Myth#4: Reality

People who are struck from behind sometimes believe that, because their airbags didn't deploy, there is something wrong. In most cases, front airbags deploy only in moderate to severe frontal collisions. Obviously, side airbags deploy with side impact crashes. The direction of a crash determines whether an airbag will deploy. Also, airbag systems have sensors in place that will not allow them to deploy in less severe collisions. Airbags are designed to protect drivers from injuries based on the direction of the crash forces and on the severity of the collision. If your airbag didn't deploy, you probably did not need it to protect you.

#### Myth #5: I'm too short for my airbag.

There are a number of drivers who report that they are "afraid" of their airbags. The fact that this "safety device" may come flying out at them at incredible speed causes them discomfort. This may be especially true for those drivers who are below average height.

#### Myth #5: Reality

There are some people who are "vertically challenged" and may have to sit very close to the steering wheel in order to safely reach the pedals. For those people, I would strongly urge them to contact a reputable provider of after market controls that will allow them to operate their vehicles safely without being too close to the steering wheel and airbag.

In reality, most drivers are tall enough that they can reach the pedals comfortably and still leave enough space between them and the airbag. An easy way to determine if you have enough space is to sit behind the steering wheel and take a 8-1/2" x 11" piece of paper and place it long ways between you and the airbag. If you have at least 11 inches of space between you and the airbag, you are okay. If you have trouble achieving this much space adjust your seat up or down or adjust your seatback to the point where you can obtain the distance while still maintaining sight lines and pedal control.

Myth #6: The person to the right at an intersection always has the right of way.

There are some drivers that hold fast to this rule no matter what. If they are driving the vehicle to the right, they are going to go first, and it doesn't matter what the other drivers are doing. They are to the right and they are going to go.

Myth #6: Reality

Nobody has the right of way at an intersection until it is yielded to them. The key safety word at intersections is – Patience. If you are at an intersection where several vehicles arrive at the same time, look at the other drivers, acknowledge their existence, allow them to proceed and then take your turn. This may take about 5 seconds of your day. Whereas, if you pull up to that intersection and insist that you are going first, there may be another driver on the cross street that has the same idea. The next thing you know, you have both entered the intersection and there is a collision. What would be less time consuming, letting the other drivers go, or becoming involved in a collision? Remember – Patience.

Myth #7: Deer whistles on my vehicle will prevent me from ever being involved in a collision with a deer.

There are drivers who believe that because they placed “deer whistles” on their front bumpers, they don't ever have to worry about striking a deer.

Myth #7: Reality

There are conflicting studies that discuss the effectiveness of deer whistles. Manufacturer studies claim that these devices are extremely effective in deterring deer from entering your path of travel. In contrast, a study conducted by Washington State University states that these devices are ineffective.

Here is the reality; don't depend on them. As a driver your best defense for avoiding a collision is to stay alert and scan properly. This is especially true for people who drive in areas where there is a large amount of wildlife. Be especially diligent in areas where they have deer crossing signs posted. Also, use additional care during autumn months when the deer are more active.

If a deer, or any other animal crosses your path while driving, avoid the urge to swerve around the animal. These maneuvers can lead you to loose control of your vehicle. You may strike another vehicle or some other object like a pole or tree. In the event that a deer does cross your path, try to reduce your speed by braking. However, make sure that you come off the brake before impact with the deer. If you are braking heavily when you strike a deer, the front of your vehicle will be pushing downward. This may cause the deer to ride up over your hood and come back and strike your windshield. Deer have been known to break through windshields and cause serious injuries to the vehicle's occupants. By coming off the brake before impact, the front of your vehicle will lift and there is a better chance that you will push the deer out ahead of you.

Myth #8: Since I have daytime running lights I don't need to turn on my lights during bad weather.

There are drivers who believe that, if their vehicle has daytime running lights there is no need for them to turn on their lights during bad weather. Many of these vehicles are equipped with light sensors that will turn a vehicle's headlights on as soon as it gets dark. The driver never has to touch the light switch. It's automatic.

#### Myth #8: Reality

Daytime running lights are an awesome safety enhancement that many cars are now equipped with. Daytime running lights reduce the risk of daytime vehicle-to-vehicle frontal collisions. However, if the weather gets bad, you must turn on the lights at the light switch. Daytime running lights only illuminate lights on the front of the vehicle. During periods of diminished sight distance associated with driving in bad weather, you also want your taillights lit so that people don't run into the rear of your vehicle. Under bad weather conditions it may not get dark enough to trigger the automatic sensors to turn on all of your lights. The rule of thumb is: Wipers on – Light Switch On.

#### Myth #9: Anti-lock brakes stop me quicker.

There are drivers who have the mistaken belief that their anti-lock braking system will stop them faster. As a result of this misconception some of these drivers have a tendency to drive more aggressively. The results of these actions are predictable.

#### Myth #9: Reality

With an anti-lock braking system, the system does exactly what the name denotes. No tire will "lock up" in a heavy braking situation. The tires will not skid. These systems are designed to keep a vehicle straight during hard braking and to allow the driver to maintain a portion of their steering control. They are not designed to stop a vehicle quicker.

An example of how this system will keep a vehicle straight during hard braking would be when a vehicle's tires are on two different surfaces when braking. The right side tires may be in the gravel of the shoulder of the road while the left side tires are on the asphalt surface of the roadway. Since the vehicle's tires will not lock up, the vehicle will not spin out. It will stop in a straight line.

Because the tires do not lock up, the steering tires will still maintain a good portion of their rolling traction. This allows the driver to maintain steering control. The result of this is that, now instead of drivers striking other vehicles from behind, they are now running off the road and striking fixed objects.

Drivers need to understand that, no matter what braking system their vehicles are equipped with; they need to slow down and stay focused on their driving.

#### Myth #10: All wheel/4-wheel drive will prevent my vehicle from skidding in bad weather.

There are drivers who believe that, because they have a vehicle that is equipped with all-wheel drive or 4-wheel drive, their vehicle won't skid on a road that is slippery due to inclement weather. They believe that these systems will prevent their vehicles from being subjected to the loss of traction that they commonly associate with 2-wheel drive vehicles.

#### Myth #10: Reality

Many of us have seen the people who are driving the "4-wheelers" on snow-covered roads. They are passing the other drivers who have enough common sense to slow down to compensate for the slippery conditions. These "4-wheelers" are making steering maneuvers that would probably be

unsafe on a dry surface. Inevitably, you will later pass by this person as they are stuck in the ditch on the side of the road.

Contrary to the belief of many drivers who have all-wheel or 4-wheel drive vehicles, these systems are not going to prevent most of the skids that occur on slippery road surfaces. These systems only provide better acceleration traction. In other words, all-wheel/4-wheel drive equipped vehicles will pull out more efficiently on a slippery surface than a 2-wheel drive vehicle. However, what drivers need to understand is, just because you can move forward faster, doesn't mean that you can stop faster. Also, all-wheel/4-wheel drive systems do very little in the way of preventing critical speed scuff skids. If you are attempting to maneuver a curve and you are traveling at a speed that exceeds the speed at which you can drive through that curve safely, your vehicle will not be able to safely negotiate the curve. It will slide out into what is known as a critical speed scuff. All-wheel/4-wheel drive will not prevent this from happening.

#### Myth #11: The best hand position on the steering wheel is 10 and 2.

The old standard regarding the proper place to put your hands on the steering wheel is 10 and 2. This is what many drivers learned when they first learned to drive and they still believe that this is the safest thing to do.

#### Myth #11: Reality

With the development of airbag technology, 10 and 2 is no longer the best position for your hands on the steering wheel. 9 and 3 is now considered the best and safest hand placement on the steering wheel. This allows more space for the airbag to deploy. Another bonus is that it increases the driver's range of steering motion.

#### Myth #12: You should turn your wheels to the left when you are stopped to make a left turn.

Some drivers believe that while they are stopped to make a left turn, they should prepare for the turn by turning the wheels to the left. By doing so they feel they can make a quicker break across the oncoming traffic lane.

#### Myth #12: Reality

Turning the wheels left while waiting to turn left is a common mistake that many drivers make. In reality, this is a very dangerous thing to do. If you are in this position and you are struck from behind you will be pushed into the oncoming traffic. Always make sure that your wheels are straight when you are turning left. This includes turning at an intersection, and if you are on a roadway attempting to turn into a driveway.

#### Myth #13: Coffee and a shower will sober me up

Some drivers have the belief that, if they have been drinking alcoholic beverages, drinking coffee and taking a shower will assist them in getting sober. They believe that the coffee and the shower will make them more alert and therefore make them safe to drive.

#### Myth #13: Reality

It is amazing that there are still people out there who believe that coffee and a shower will help to make them sober. The fact of the matter is that the only thing that will make a person sober is time. Once the alcohol is consumed, all of the coffee and the showers in the world aren't going to

eliminate that alcohol from your system. Drinking coffee and taking a shower will only make you a clean, awake drunk driver. You are still impaired and you should not be behind the wheel. Always make sure that you build enough time into your schedule so that the alcohol has been eliminated from your system before you get behind the wheel.

Myth #14: If I get tired when I am driving I'll be fine as long as I roll down the window, turn the music up and drink lots of coffee.

Many drivers attempt to wake themselves up while driving by rolling down the window to make it cold inside the vehicle, turning up the music to make it loud and drinking large amounts of coffee so that the caffeine stimulates them awake.

Myth #14: Reality

If you are a fatigued driver and you roll down the window, turn up the music and drink lots of coffee, you will be cold, you will suffer hearing loss and you will need to go to the bathroom, but you will still be tired. These are short fixes that work for a short amount of time. Do not become dependent upon them. Sleep is the only thing that truly combats sleep deprivation fatigue. Try to get enough rest before you need to drive. If you haven't had enough sleep, you should avoid driving. If you are driving and you begin to feel tired, stop the car. Driver fatigue is dangerous and it leads to crashes. Unfortunately, drivers continue to drive while they are tired. They depend on the "short fixes" to get them through. These drivers need to wake up to the reality that they are putting themselves and other drivers at serious risk.

Myth #15: Using a hands-free cell phone while driving is perfectly safe.

Many drivers, and some state lawmakers, believe that using a hands free cell phone is perfectly safe while driving. Their thought is that, with two hands on the wheel, using a hands free phone is safe. They believe that there is no difference with talking on a hands free phone and talking to a passenger sitting next to them.

Myth #15 Reality

In December of 1999, the New England Journal of Medicine quoted a study that showed that, if you talk on a phone while driving, you are as likely to crash as a person who has a Blood Alcohol Concentration of .08%. This is the assumed level of intoxication in every U.S. state and all of the provinces of Canada. The study also points out that, using a hands free device did not make it any safer. It is not the fact that you don't have two hands on the wheel; it is the distraction of the call that makes this practice so unsafe. The study that was quoted in the New England Journal of Medicine was verified correct by a 2003 study conducted by the University of Utah. This study showed the same results.

Regarding the argument that talking to a passenger is no different than talking on a hands free phone: All studies have shown that, talking on a phone takes more of your cognitive concentration than talking to a person in your vicinity. If for no other reason, if the passenger that you are talking to notices something unsafe, they will probably make you aware of it. At the very least, they will stop talking and thereby stop distracting you. Whereas, if you are on the phone, you will continue to be distracted right up to the point of your collision.

Myth #16: If I am running late, I can make up time by driving faster.

Most drivers believe that, driving faster helps them to arrive at their destinations quicker. It stands to reason, the faster you go, the sooner you get there. This is especially true when running late. They feel compelled to increase their speed. For these drivers it's all very logical – Faster Speed = Arriving Sooner.

Myth #16 Reality

Driving faster, in most cases, does not equate to arriving sooner. Every second or minute that a driver may gain by driving at a faster speed is quickly eliminated at the next red light or traffic jam. They gain nothing. It is not uncommon to see a vehicle speeding down the highway, swerving from lane to lane and passing other vehicles on all sides. Inevitably, when you stop at the next red light, that same vehicle will be waiting for the light in the lane next to you. All the driver accomplished with their reckless driving was arriving at the red light sooner. The applicable question for this situation is: Was it worth it?

If running late the logical and safe thing to do is call ahead to your appointment. Under the worse case scenario you will miss your appointment or have to reschedule. Under the best case, and quite often more common scenario, the person with whom you have the appointment will thank you for your courtesy call and tell you they will see you when you get there. No matter what the result, by calling ahead you eliminate the pressure and distraction of running late. Remember: The courtesy call should be made while your vehicle is safely parked.

Myth #17: The most important task I accomplish each day is completing all of my required work.

There are people who believe that driving is just something that they need to do in order to arrive at a location where they can complete their actual work. They are dedicated employees who believe that the most important task that they need to accomplish is finishing the work that has been assigned to them.

Myth #17: Reality

Too often people place the emphasis of their day on the wrong task. They believe that, above all else, they must complete their work. They are dependable, hard working, well respected employees with rapidly advancing career paths. Whereas, completing your work effectively and efficiently is very important to your career, this is not the most important task that you accomplish each day. You could be the best employee that your organization has ever hired, but does this matter if you are killed in a traffic crash? If you don't get home at the end of the day, all of your hard work means nothing. Always remember, the most important task that you accomplish each day is, arriving home safely. Every time you get behind the wheel you must remember what is truly important.