

Some Tips From GM On

HOW TO AVOID OR SURVIVE A CAR CRASH

AVOIDANCE TIPS

No one ever plans on having a crash. Yet millions take place each year, many quite serious. Many fatal crashes involve drivers who have been drinking. Others are caused by drivers who are too careless or inexperienced for the conditions in which they find themselves. Avoiding such drivers, as well as coping with poor driving conditions, is the subject of the first section of this pamphlet.

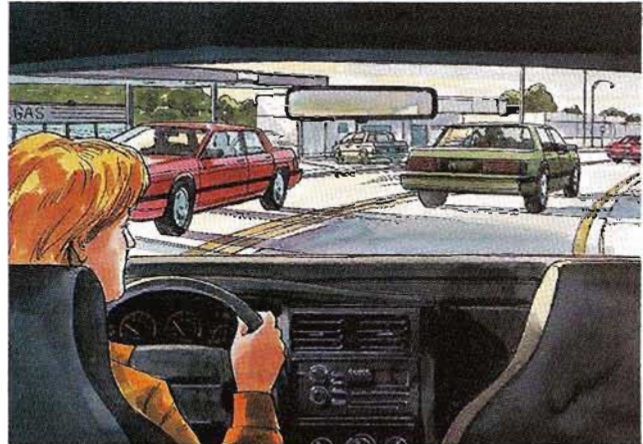
Q. What is the primary cause of auto collisions?

A. Many collisions are the result of driver error, more than any other factor. This is what all accident studies show — not only in the U.S. but elsewhere around the world. This includes improper lookout, excessive speed, improper evasive action, internal distractions, and driver inattention or distraction. The tragedy is that nearly all collisions caused by driver error could have been prevented. Here are a few tips:

- Avoid taking your eyes off the road to adjust your radio or air-conditioning/heating, or to talk to passengers.
- Pull off the road if you need to check a road map.
- Remain a safe distance from the vehicle in front of you, and allow plenty of room for changing lanes.

Q. How can I detect potentially dangerous situations?

A. Extend your field of vision to include everything down the road as far as possible. Continuously scan the road and check your rear view mirror every few seconds, and certainly before you change lanes, turn or stop. Obviously, you need to leave sufficient space between you and the vehicle ahead so that you will have time to apply your brakes if that vehicle suddenly slows or stops. Keep an eye on the vehicle several positions up the line for clues that might make it necessary to take evasive action.



Watch for drivers talking or looking frequently to the side, as they are likely to make sudden movements because their minds are not on their driving. Be wary of cars parked at the roadside, especially if you see they are occupied. They might not see you and drive out in front of you, open the car door into your path, or someone walking around the car could step in front of you. Always expect the unexpected!

Oncoming vehicles that weave or cross the centerline could mean drinking or sleepy drivers; keep close watch on their actions until they pass. Always look for avenues of escape that could be taken should an accident appear likely.

Q. What if another car is heading toward you and it appears that a head-on crash is imminent?

A. Move to the right. If you move left, the head-on you were hoping to avoid may still happen. If the oncoming driver recovers, he may instinctively swerve back into his proper lane. Reduce your speed and wait as long as you can to pull out of your lane. Pull as far to the right as possible; if needed, you should drive completely off the road. If you have to hit something, aim for something relatively soft, such as shrubbery.

Q. What is the best method to avoid a drunk driver?

A. Signal, then make a right turn onto another roadway or a driveway. If you are on a long

stretch of open highway, continue on until you can turn off and let the other car pull ahead. If you merely move onto the shoulder, you could risk being hit because drunk drivers have a tendency to focus on taillights. As the car passes, try to get a license plate number and a description of the vehicle. Then notify the police.

Q. What is the best way to cope with poor road conditions?

A. Rain, snow and ice obviously can affect road traction. This means that it can take longer for you to stop, and you could lose steering control as well. ALWAYS adjust your car speed to accommodate conditions, and leave sufficient space to bring your car safely to a stop. Poor weather also affects visibility. You want to be able to see down the road at least as far as your car would travel in 12 seconds. At 50 mph, this would be about the length of 3 football fields. The same rule holds true for night driving.

Q. Is braking the best way to avoid a crash?

A. Usually yes, but steering to miss the crash can be just as important. Also, skidding the wheels hurts braking capability and the ability to steer.

If you have an anti-lock brake system (ABS) and lockup is imminent, then just hold the brake pedal down and let the ABS modulate the brakes for you. This way you can avoid losing control from wheel lockup, while reducing forward speed. ABS also helps you retain steering control, which might enable you to drive around the problem.

Remember, with ABS, *don't* pump the brakes. Just hold the brake pedal down and let anti-lock work for you. You may feel the system working, or you may notice some noise, but this is normal.

For vehicles without ABS, use a "squeeze" braking technique. This will give you maximum braking while maintaining steering control. You do this by pushing on the brake pedal with steadily increasing pressure. In an emergency you will probably want to "squeeze" the brakes hard without locking the wheels. If you hear or feel the wheels sliding, ease off the brake pedal. This will help you retain steering control.

Q. Suppose I go into a skid or start to hydroplane...what then?

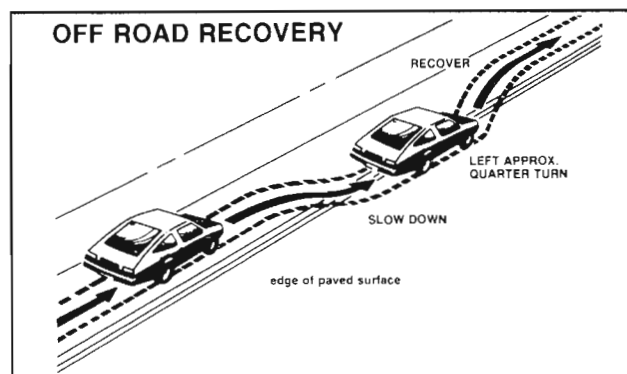
A. Don't touch the brake. Just ease off the gas pedal and steer to keep the vehicle pointing down the road. Also, wearing a safety belt helps keep you positioned behind the steering wheel, and this aids you in retaining steering control.

Q. How about blowouts?

A. Blowouts are infrequent events today. But if one occurs, react as you would in a skid: ease off the gas and steer in the direction you want the vehicle to head. Do NOT jam on the brakes. Remember, saving yourself is much more important than saving the tire. The fact that it blew out in the first place means that the tire probably has been damaged beyond repair.

Q. What should I do if my right wheels drop off the pavement onto the shoulder of the road?

A. If the level of the shoulder is only slightly below the pavement, recovery is fairly easy. Ease off the gas, then, assuming no obstacle, steer so that your car straddles the edge of the pavement. Make a quarter turn of the steering wheel until the right front tire contacts the pavement edge, then countersteer to steer straight down the roadway.



If the shoulder appears to be about, say, four inches below the pavement, treat recovery with extra caution. If there is not enough room to pull entirely onto the shoulder and stop, then follow the same procedures as above, except that if the right front tire scrubs against the side of the pavement, do NOT increase your angle of steering. With too much steering angle, the car may jump back onto the road with so much steering input that it crosses over into oncoming traffic before you can bring it back under control. Instead, ease off again on the gas and steering input, straddle the pavement once more, then try again. Of course, if no one is behind you, slow down before re-entering the road.

Q. How much space should I keep between my car and the car ahead?

A. Current thinking is to drive two seconds behind another car, or three seconds if you are driving a truck or bus. Two seconds can be measured as the distance you travel while counting "one thousand and one, one thousand and two" as related to objects at the side of the road.

Q. Do you have any special advice for small car drivers?

A. Yes. Make certain that you always can be seen by other drivers. Small cars can become hidden against background items or other vehicles. Make certain that your lights are on at dusk and dawn. Anticipate not being seen, particularly by drivers of trucks or buses. It is easy to get in their "blind spots." They may not see you because of your lower roof line and may attempt a lane change without realizing that you are there. Give such vehicles a

wide berth. Safety belts are even more important, of course, for small car drivers.

Q. Should I drive any differently in a front wheel drive car?

A. No. The driving techniques for avoiding a crash are the same for all vehicles. Keep in mind that it is always advisable to drive any car with which you are not familiar at moderate speeds until you become accustomed to steering input. Many prefer front wheel drive cars because they have good traction on snow.

SURVIVAL TIPS

Most people are careful drivers. They do not expect to be in crashes, yet sometimes they are, perhaps not due to any fault of their own. Once a crash does happen, there are some safety devices and procedures that help reduce injury level. See below.

Q. What is the single most important piece of survival equipment in my car?

A. The safety belt, for several reasons: One, it ties you to the vehicle. This is important because in frontal crashes the front structure and sheet metal of the typical car are designed to deform and fold, to function as a shock absorber which slows the car to a stop. (At 30 mph into a flat surface, this crush distance is typically about two feet.) Safety belts allow you and the vehicle to slow down together during such a crash. You get more time to stop. You stop over more distance, and your strongest bones take the forces. Safety belts are about 42% effective in preventing fatalities in frontal collisions.

Almost all General Motor cars are equipped with a Supplemental Inflatable Restraint System, also called an air bag. The air bag enhances the effectiveness of safety belts ... the use of belts plus air bag is about 47% effective in preventing fatalities in frontal collisions.

Also, a safety belt can help reduce the possibility of your being injured by a deploying air bag itself. A safety belt will also help to keep you inside the car. Without a belt, your chance of being ejected is far greater. In the past, ejections have been involved in nearly 25% of fatal crashes. The concept of improving survival by being thrown clear is a terrible myth. The chance of being killed is far, far less if you are held in the car. Fear of being trapped by a safety belt in a burning or

submerged car is sometimes given as a reason for not wearing a belt. The fact is, burning or submersion is very rare and, even if it did happen, the belt increases your chance of remaining conscious and being able to get out.

Because of the high effectiveness of belts, most states have mandatory safety belt use laws. GM has been very active in support of passage of such laws.

Q. Safety belts are for adults. What about the survivability of my children?

A. Yes, safety belts are for adults, though it is noted that children too large for child restraints should also wear safety belts. All states already require that smaller children be seated in a qualified child restraint. GM fully supports these laws, as child restraints offer the same benefits as do safety belts for adults.

Some well-intentioned parents believe that they can hold a child in their arms during an impact and provide the same protection as would a child restraint. This is definitely not so.



A baby doesn't weigh much — until a crash. During a crash a baby will become so heavy you can't hold it. For example, in a crash at only 25 mph, a 12-pound baby will suddenly become a 240-pound force on your arms. The baby would be almost impossible to hold.



A word of caution: For cars with a passenger side air bag, a rear facing child seat must never be placed in the front seat. It should always be in the back seat. Check your owner's manual for complete details on how to secure the child safety seat in your vehicle.

Q. What else can I do to increase my chances for survival or reduce potential injuries?

A. Lock your car doors. This will help keep the doors closed, which in turn helps prevent you from being thrown out of the car, especially in a rollover or side collision. Statistics show that ejection is one of the most dangerous of accident situations. In fact, the safety belt was originally introduced to prevent ejection.

If your car has adjustable head restraints, by all means keep them at a position which

places the top of the restraint closest to the top of your ears.

Most importantly, watch your speed. Even if you are in no danger of losing control of your vehicle, if someone else hits you it is most probable that your chances of being injured will increase with your own speed.

The mass of the car can be an important plus in crashworthiness. Heavier cars are safer in a crash than lighter models.

And finally, don't drink before you drive! Although this is a frequent comment, it is not an idle one. The consequences of drunk driving go far beyond a stiff fine, losing your license, or spending the night in jail.

There's something else about drinking and driving that many people don't know. Medical research shows that alcohol in a person's system can make crash injuries worse. That's especially true for brain, spinal cord and heart injuries. That means that if anyone who has been drinking — driver or passenger — is in a crash, the chance of being killed or permanently disabled is higher than if that person had not been drinking. And we've already seen that the chance of a crash itself is higher for drinking drivers.

ACCIDENT SCENE TIPS

Sometimes, despite the driver's best efforts, the worst driving fear will come true — a crash will happen. Knowing what to do next is important. Here are some tips:

Q. What should I do first?

A. After you have had a crash, the first step is to check to see if anyone is hurt. If so, get someone to phone 911 for emergency medical assistance immediately.

Q. Should I sit and wait in my car after a crash?

A. In general, most police departments recommend that you move your vehicle to the side of the road as far away from traffic as possible to avoid being hit by another vehicle (but only if the vehicle can be moved without hurting an injured person or putting yourself in further danger.) Be sure to use your hazard flashers when you move your car to warn oncoming drivers that they are approaching an accident scene.

Q. What information should I exchange with the other driver?

A. All accidents should be reported to your insurance company as soon as possible. If another vehicle is involved, obtain the following information from the other driver: driver name, address and phone number, driver license number, insurance company name, address, and policy number, and the names and addresses of passengers in the other vehicle. It is also important to get the name, address and phone number of any witnesses and the name, badge number and precinct of the police officer who files the police report.

Q. Is there anything else that I should do?

A. As soon as possible after a crash, it is a good idea to draw a diagram of the accident showing the road, where the vehicles came from, and where they met. Also make note of the day and time of the crash, weather and road conditions, and location and visibility of the accident scene.
