

In this chapter we will be looking at driving maneuvers, those vehicular movements or series of moves requiring skill and care. If we're not careful, injuries or worse could happen.

### **5.1 Driving Maneuvers - Backing Up**



Backing up is a maneuver that actually begins outside of the vehicle. Before getting into the car, you will want to check for children, animals and small objects behind the vehicle which may not be visible from the driver's seat. Once in the car, you'll need to turn your head to see beyond the head restraint. However, **do not solely depend on mirrors alone when backing.** One loses depth perception when using the mirrors to guide the vehicle while backing up.

With today's driver technology, newer cars now come with back-up cameras, or you can purchase a camera and have it installed. These cameras will show what is directly behind the car or any object that may be approaching from either side of the car.

Any area around the vehicle that the driver can't see, either directly or through a side or rearview mirror, is a blind spot. All vehicles have blind spots, and the blindest of all is at the rear of the vehicle.

Back overs can lead to injuries or death when the driver is not fully aware of what's going on behind the vehicle. Unfortunately, when it comes to children, Kids and Cars reports that 50 children are backed over every week. The predominant age of victims is 12-23 months. And what's most amazing is that in over 70% of back overs a parent or close relative was behind the wheel.

So, how can we prevent back over injuries?

- **Look all around before you get in the vehicle.** No matter where you are parked, always walk around the vehicle and look underneath it, too, before getting in and starting to move it. If there are children playing nearby, count them and make sure, before you back out, that you can still see all the children.
- **Listen.** Turn off the radio and keep windows rolled down so you can hear, as well as see, what's going on around you.
- **Be prepared to stop.** A tragedy can happen in a heartbeat. Always back out cautiously and with complete control over the car, and be ready to stop instantly if needed.
- **Do not rely on cameras and sensors alone.** Controlled tests have demonstrated that cameras and sensors mounted on SUVs and other large vehicles, while helpful, are not foolproof in detecting children playing or crossing behind the vehicle. Detection results vary according to several factors, including the number and position of the children (such as a child pausing at the rear corner of the vehicle), weather conditions, slope of driveway or street, and so on.
- **Teach children not to play near cars.** Don't allow the driveway to become a playing area, and be sure your children are taught never to play near, under, inside, or behind a vehicle of any kind.

## **5.2 Driving Maneuvers - Lane Changes**

Vehicle code 21658 states: Whenever any roadway has been divided into two or more clearly marked lanes for traffic in one direction, the following rules apply: (a) A vehicle shall be driven as nearly as practical **entirely within a single lane and shall not be moved from the lane until** such movement can be made with reasonable safety. (b) Official signs may be erected directing slow-moving traffic to use a designated lane or allocating specified lanes to traffic moving in the same direction, and drivers of vehicles shall obey the directions of the traffic device.

Changing lanes is a simple process, however, at higher speeds it can be challenging. Here are the key steps to successfully changing lanes:

1. **Maintain Your Speed** - When changing lanes, you should maintain your speed. Don't let off the gas. You want to keep up with the normal flow of traffic.
2. **Turn on Your Blinker** - Turn on your blinker to tell those around you what you're planning.

3. **Look for an Opening** - Look for an opening in the lane that you can safely enter.
4. **Check Your Side and Rearview Mirrors** - To further ensure the opening is safe, check the side mirror on the side you plan to merge into along with the rearview mirror for other vehicles.
5. **Check Your Blind Spot** - Even with all the mirror checks, you will have a blind spot. As the last step before making the change, look over your shoulder in the direction you plan to merge. Make sure no other vehicle is coming.
6. **Merge Into the New Lane** - Once all is clear, turn the steering wheel gradually and as needed to move into the new lane while keeping up your speed. You don't want to jerk over to the new lane but also don't want to take too long.
7. **Turn Off Your Blinker** - Once you've completed merging into the new lane, check to make sure your blinker is turned off.

This method can be simplified by using the SMOG technique:

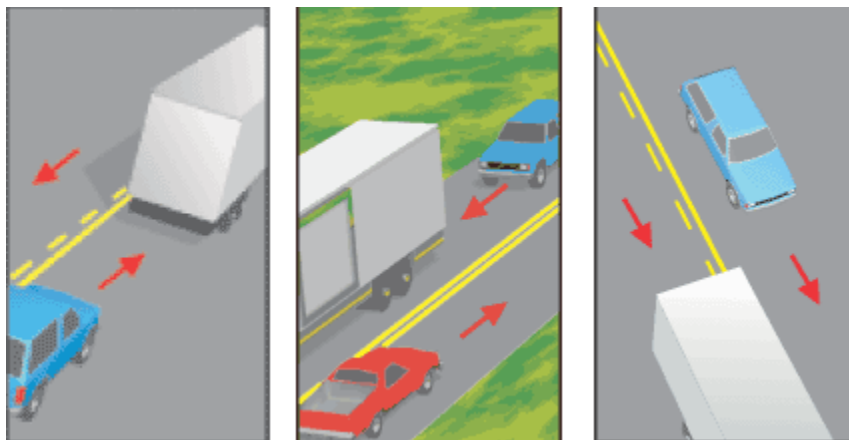
**S - Signal**

**M - Look in mirror**

**O - Look Over shoulder**

**G - Go!**

With this technique under your belt, let's now look at those opportunities that allow/disallow passing.



- (1) Yellow line, continuous: do not exceed if the continuous yellow line is on your side.
- (2) Yellow, continuous, and double lines: DO NOT exceed.
- (3) Yellow line, discontinuous: it can be exceeded if you can do it safely.

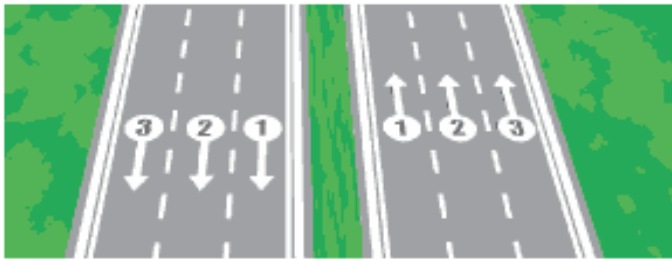
Continuous white lines indicate that traffic flows in the same direction as in one-way streets.

Discontinuous white lines separate traffic lanes on roads of two or more lanes that run in the same direction.

Double white lines are two continuous white lines that are considered as a wall between a regular use lane and an exclusive use lane, such as a collective lane or vehicle lane with a minimum of two or three passengers. Never change lanes while driving in these lanes until a single dashed white line appears. There may also be parallel lines near or on the same ramps for entering and exiting a motorway.

**Choose a lane:** Lanes are often named by numbers. The left or "fast" lane is known as "lane No. 1". The lane to the right of "lane No. 1" is known as "lane No. 2", then "lane No. 3", etc.

Example of numbered lanes



Drive in the lane that maintains the most constant traffic flow. **If you can choose between three lanes, choose the center lane because the speed is more uniform.** If you want to go faster, go over or turn left, use the left lane. Use the right lane when you want to drive slowly or to get on or off the road.

If there are only two lanes in the same direction, choose the right lane because it has the most constant traffic.

Do not weave in and out of traffic. Stay in one lane as much as possible. Once you start through an intersection, keep going. If you start to make a turn, follow through. Last minute changes may cause collisions. If you miss a turn, continue until you can safely and legally turn around.

**The center two-way left-turn lane to turn left** is located in the middle of a two-way street and is marked on both sides with two painted lines. The inner line is discontinuous and the outer line is continuous. If the street has a center two-way left-turn lane to turn left, you must use it to prepare to turn left, or to make a permitted U-turn. **You MUST drive completely into the center-left-turn lane.** Do not leave part of your car hanging in the

other lane. If you do, you may prevent the cars behind you from proceeding forward. (§21460.5 (c) CVC).



**You can only drive for a maximum of 200 feet** in the center two-way left-turn lane to turn left. This lane is not a normal traffic lane or to pass. To turn left from this lane, turn the directional light, look over your shoulder and get completely inside this lane. Do not let the back of your vehicle block traffic. Make sure the lane is cleared in both directions and turn only when it is safe. Check if vehicles are coming towards you in this same lane preparing to start turning left.

When turning left from a side street or from a particular entrance, turn the directional light on and wait until it is safe to do so. You can then get into the center lane to turn left.

### **5.3 Driving Maneuvers – Passing**

**When Approaching to Pass**, before you pass, look ahead for road conditions and traffic that may cause other vehicles to move into your lane. Only pass when safe to do so.

You must judge whether or not you have enough room to pass whenever you approach:

- An oncoming vehicle
- A hill or a curve
- An intersection

- A road obstruction
- A bicyclist

**Do not pass:**

If you are approaching a hill or curve and you cannot see if there is other traffic approaching.

Within 100 feet of an intersection.

Vehicles may appear to move slower than they are actually moving. A vehicle that is far away generally appears to be standing still. If you can see it moving closer to you, it is probably too close for you to start to pass.

**How to pass:** Never drive off the paved or main-traveled portion of the road or on the shoulder to pass. The edge of the main-traveled portion of the road may have a painted white line on the road's surface. Passing other vehicles at crossroads, railroad crossings, and driveways is dangerous.

Pass traffic on the left. You may pass on the right only when:

An open highway is clearly marked for two or more lanes of travel in your direction.

The driver ahead of you is turning left and you do not drive off the roadway to pass.

Never pass on the left if the driver is signaling a left turn.

On a one-way street.

Always signal before passing. You may also lightly tap your horn, or briefly flash your lights, to let the other driver know you intend to pass. Do not pull out to pass unless you know you have enough space to pull back into your lane.

Avoid passing other vehicles, including motorcycles and bicycles, on two-lane roads; it is dangerous. Every time you pass, you increase your chances of having a collision. However, when you pass a bicyclist, be patient. Slow down and pass the bicyclist only when it is safe, allowing for a minimum of 3 feet between your vehicle and the bicyclist where possible. Do not squeeze the bicyclist off the road. This is the law per CVC §21760.

**Vehicle code 21760 states:** (a) This section shall be known and may be cited as the Three Feet for Safety Act. (b) The driver of a motor vehicle overtaking and passing a bicycle that is proceeding in the same direction on a highway shall pass in compliance with the requirements of this article applicable to overtaking and passing a vehicle, and shall do so at a safe distance that does not interfere with the safe operation of the overtaken bicycle,

having due regard for the size and speed of the motor vehicle and the bicycle, traffic conditions, weather, visibility, and the surface and width of the highway. (c) A driver of a motor vehicle shall not overtake or pass a bicycle proceeding in the same direction on a highway at a distance of less than three feet between any part of the motor vehicle and any part of the bicycle or its operator. The driver of a motor vehicle overtaking or passing a bicycle that is proceeding in the same direction and in the same lane of travel shall, if another lane of traffic proceeding in the same direction is available, make a lane change into another available lane with due regard for safety and traffic conditions, if practicable and not prohibited by law, before overtaking or passing the bicycle. (d) If the driver of a motor vehicle is unable to comply with subdivision (c), due to traffic or roadway conditions, the driver shall slow to a speed that is reasonable and prudent, and may pass only when doing so would not endanger the safety of the operator of the bicycle, taking into account the size and speed of the motor vehicle and bicycle, traffic conditions, weather, visibility, and surface and width of the highway.

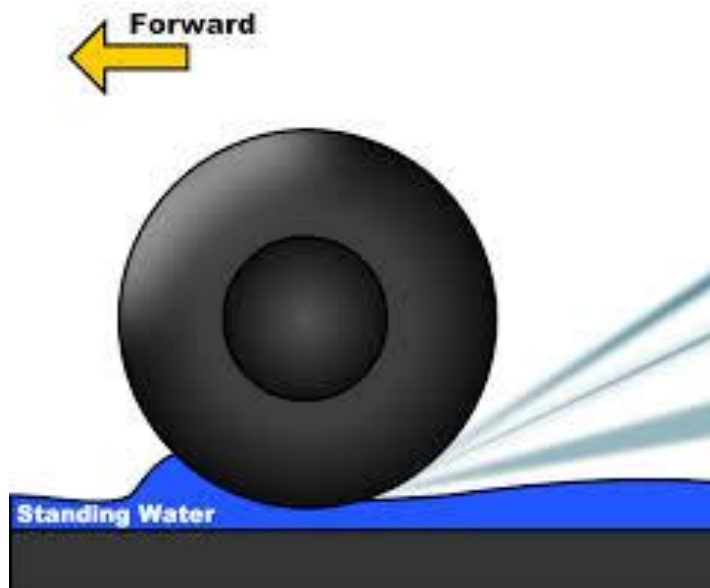
(e) (1) A violation of subdivision (b), (c), or (d) is an infraction punishable by a fine of thirty-five dollars (\$35). (2) If a collision occurs between a motor vehicle and a bicycle causing bodily injury to the operator of the bicycle, and the driver of the motor vehicle is found to be in violation of subdivision (b), (c), or (d), a two-hundred-twenty-dollar (\$220) fine shall be imposed on that driver. (f) This section shall become operative on September 16, 2014.

At highway speeds of 50–55 mph, you need a 10–12 second gap in oncoming traffic to pass safely. At 55 mph, you will travel over 800 feet in 10–12 seconds; so will an oncoming vehicle. That means you need over 1,600 feet (about  $\frac{1}{3}$  of a mile) to pass safely. It is harder to see and judge the speed of oncoming vehicles that are traveling  $\frac{1}{3}$  of a mile or more away from you.

**Returning to a Lane After Passing:** Before you return to your driving lane, be sure you are not dangerously close to the vehicle you have just passed. One way to do this is to look for the vehicle in your inside rear view mirror. When you can see both headlights in your rear view mirror, you may have enough room to return to your driving lane. Do not count on having enough time to pass several vehicles at once or that other drivers will make room for you.

**Being Passed:** If a vehicle is passing you, or has signaled intent to pass, you should avoid accelerating and maintain your lane position to allow the vehicle to pass you. Do not accelerate or try to go faster to avoid being passed.

## 5.4 Driving Maneuvers - Recovering From Hydroplaning



**Hydroplaning (also known as “aquaplaning”)** happens when the tires of your vehicle begin to ride on top of standing water instead of the surface of the road. Contrary to most drivers’ beliefs, hydroplaning can occur even when the roads are only slightly damp. Whether you are driving in a heavy downpour or on roads that are still just a little damp from a light shower that passed through hours ago, hydroplaning is a very real possibility and something that drivers should try to avoid at all costs. Hydroplaning not only strips from drivers their ability to steer their car, it also causes feelings of helplessness, a terrifying experience for even the most experienced driver.

Sometimes hydroplaning occurs no matter how careful the driver is being. If your vehicle begins hydroplaning on a wet road surface, there are several steps to take to regain control:

Immediately take your foot off of the accelerator. Never use your brakes to respond to hydroplaning. Sudden braking on a wet roadway can cause your car to skid completely out of control.

Although it may seem contradictory, gently turn your steering wheel in the direction your car is hydroplaning. This will help your tires realign with the direction your vehicle is travelling and assist you in regaining steering control.

Wait to feel the tires reconnect with the surface of the road. It will be obvious to the driver when the vehicle has driven out of the hydroplaning situation.

After successfully recovering from hydroplaning on a wet road, you may need to pull over and take a few moments to recover and calm down from this terrifying event.

### **5.5 Driving Maneuvers - Recovering From Fish-Tailing**

Fishtailing is a scary experience. **This type of skidding, also known as over-steering**, typically happens when the roadway is snowy, icy, and even in heavy rain. This kind of loss of vehicle control results when the front wheels turn and the rear wheels – rather than gripping the road – slide out past the turn. Fishtailing doesn't just happen when going around corners – all that's needed is a slight adjustment of the front wheels, such as that required to keep your car in your lane, and you can be skidding out in no time.

Whether it happens on snow, black ice, or on a flooded road the corrective actions are the same. **The first step is to turn the wheel in the direction the tires are skidding (otherwise known as “turning into the skid”)**. This puts the rear end back in line with the front tires, allowing the car to continue in a straight line. In other words, if your rear end comes over toward the driver side, turn the wheel to the left. Conversely, if the back tires go the way of the passenger's side, correct the steering wheel to the right.

The sooner in the skid that you start turning the wheel, the less severely you will need to turn. It's vital to remain calm – if you panic and yank the steering wheel hard in the direction of the skid, you may just cause the rear to fishtail to the other side, which leads to a cycle of continuous flailing down the road, sometimes ending in an unintended 360 donut. Obviously you want to prevent this potential hazard to your own life and that of other drivers.

The other important aspect of correcting a fishtailing car is that you should slow your speed of travel and avoid stomping on the brakes.

#### **To summarize:**

- Steer gently into the direction of the skid, beginning the correction as early in the slide as possible.
- Keep your foot off the brake pedal.
- Slow your rate of speed.

### **5.6 Driving Maneuvers - Returning To The Road From An Uneven Surface**

Learning to safely drive a car off the road and back onto it is an extremely important skill for all drivers. Nearly every driver will, at some point in their life, encounter a situation in which they must drive off the road. Knowing how to handle it can drastically increase your chances of avoiding a serious crash.

## Two Wheels at a Time

The key to safely driving off the road and safely returning involves gradually moving off and back on the road. The turning of the steering wheel should be slight. This reduces the chance of erratic vehicle behavior when your tires encounter an uneven or unpaved shoulder.

- When driving off the road, turn the wheel slightly to the right so that both of your right-side tires exit the road. DO NOT BRAKE. Your feet should be off both the brake and the accelerator pedals. Basically, you're "coasting".
- Turn the wheel slightly back to the left so that your car is driving parallel to the road.
- Start braking and ease the two left wheels off the road.
- Steer straight and come to a stop.

Follow the procedure below if you need to return to the road while still moving.

- At this point, all four wheels are off the road surface and you are traveling parallel to the road.
- Steer gently to the left until you feel the front left tire enter the road. At this point, steer gently back to the right (counter steer) in order to straighten the car. At this point, the rear left tire will have entered the road.
- Steer gently to the left until both of your right wheels are back on the road. As soon as they enter the road, steer gently back to the right.
- Straighten out the car in the middle of the lane.