



# Using Efficient Steering Techniques

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Crash statistics indicate that driver errors involving steering techniques are the main causes of crashes where drivers run off the road. Methods used to control steering input for drivers are often outdated and ineffective for avoiding crashes. Modern technology is always changing the demands of driver setting techniques.

## The Steering Wheel:

- The steering wheel and associated mechanisms has changed dramatically over the years.
- The size, type of input needed, responsiveness of steering in regarding to directional change, changes in steering ratios and effort needed to turn the wheel have all changed.
- Thus, recommendations relative to hand position on the steering wheel have become more flexible due to these changes.
- In order to maximize vehicle control, efficient steering involves balancing the steering wheel to avoid sudden movements and minimize steering wheel reversals.

## Hand Position

- Both hands should be placed outside of the steering wheel on opposite sides.
- Your grip should be firm, yet gentle.
- Use your fingers instead of the palms of your hands and keep your thumbs up along the face of the steering wheel.
- Never turn the wheel while gripping it from the inside of its rim.



## Types of Steering Methods:

There are three methods of steering which can be used when turning and when performed properly, can provide smooth, continuous steering control.

### Hand-to-Hand Steering: (commonly called push/pull steering)

- When using this method, your left hand grasps the wheel between 7 and 8 o'clock, and your right hand between 4 and 5 o'clock.
- Depending on the direction you turn, your right or left hand pushes the wheel up and the opposite hand slides up, grasps the wheel and pulls down to turn.
- While the pulling hand moves down, the hand that initially pushed up slides back toward its original position to make adjustments as needed.
- The driver should use the area on the wheel between 11 and 8 o'clock with the left hand and the area on the wheel between 1 and 8 o'clock with the right hand regardless of the direction of the turn.
- Simply reverse the process to bring the vehicle back to the desired path.
- Since your hands never cross over the steering wheel, there is less chance of an injury to the face, hands or arms induced by your hands or arms in the event of a frontal crash due to an air bag.
- This is the preferred method of steering. Two and 10 o'clock is not recommended because it can be dangerous in vehicles with smaller steering wheels and equipped with air bags.





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## Hand-over-Hand Steering:

- Use this method of steering when the turning at low speeds with limited visibility at an intersection or when parking the vehicle or recovering from a skid.
- When using hand-over-hand steering, your left hand grasps the steering wheel between 8 and 9 o'clock and your right hand between 3 and 4 o'clock.
- Depending on the direction of the turn, use the right top third of the steering wheel to move the wheel to the right and use the left top third of the wheel to move the wheel to the left.
- Your right or left hand grasps the wheel and pushes up, the opposite hand lets go, reaches across the other arm, grasps the wheel and pulls the wheel up, over and down as appropriate.
- As the wheel is being pulled up, the hand that initiated the pushing motion releases the wheel and returns to its original position.
- Simply reverse the hand-over-hand process to bring the vehicle into your intended path.

## One Hand Steering:

- Use one hand steering when backing or operating vehicle controls (wipers, flashers, lights, etc) that require a reach from the steering wheel.
- The placement of one hand on the steering wheel is critical to vehicle balance, steering reversals, and potential injury.
- When the driver is required to reach for an operating control, it is important to keep the other hand in the normal vehicle operating position of 8-9 o'clock or 3-4 o'clock, depending on steering wheel design. This keeps vehicle stability, reduces steering reversals, and allows for additional steering efforts as needed.
- The only time that 12 o'clock is recommended is when backing a vehicle to the left or right and the driver has to turn in the seat in order to see the path of travel to the rear.
- The way the wheel is turned when backing is the direction the vehicle will move to the rear.

