Stopping Distance

Stopping distance or braking distance is the distance from when the brake is fully applied to the time it takes for the vehicle to come to a complete stop. This principle is dependent on the speed that the vehicle is going and the mass of the moving object, versus the coefficient of friction. In our case the moving object is the vehicle, and the friction is produced by the tires rubbing against the asphalt.

Tips to improving stopping distance:

- Always make sure you use the appropriate type of tire for the season, this will improve the stopping distance by increasing the friction between your tires and the road.
- Use vehicles equipped with ABS braking. This system pumps the brakes for you to avoid locking the wheels and sliding.
- Reducing your speed reduces the distance required for your vehicle to stop.

Reaction time

Reaction time is the time it takes for a driver to recognize an emergency can react to the emergency. Reaction time can vary from person to person as each and every individual will move through the steps below at different speeds and times.

1) The information we perceive from our eyes will travel to our brain for processing. (Seeing a shape or object on the road)

2) Our brains then recognize what we are seeing. (The object is a pedestrian)

3) Based on ones knowledge of driving speed and stopping distance the brain assesses the information and recognizes an emergency. (We are travelling too fast and may not stop in time)

4) An emergency response is selected. (Slow down or swerve out of the way)

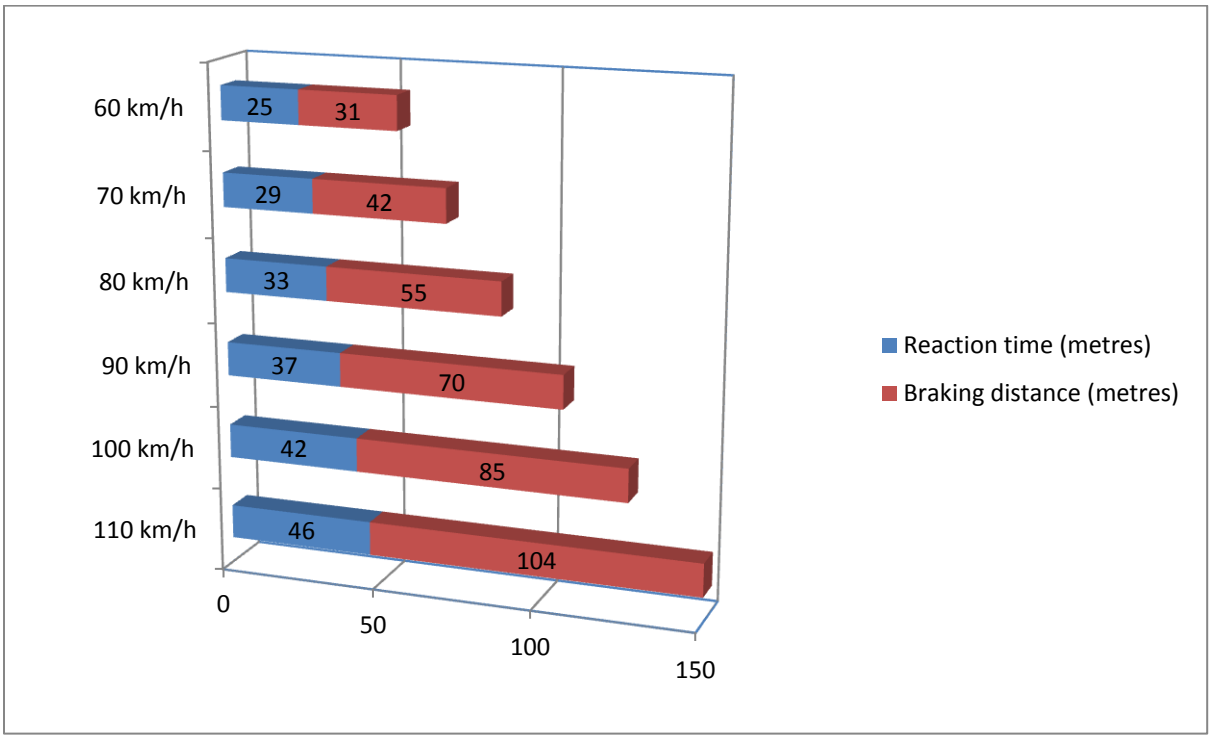
5) Once the response is selected information from the brain is sent to our bodies. (Applying the brake)

Tips to improving reaction time:

- Our eyes are fundamental n the first step of the reaction time process. Make sure to always wear the appropriate eyewear and update you prescriptions if needed.
- Scan the road further ahead to give yourself lots of time to see and react to events as soon as possible.
- Always drive with an alert and vigilant attitude.
- Experience is the best teacher in this case; in general the more experienced a driver is the faster their reactions become.

Total stopping distance

The total stopping distance is comprised of both of these principles. First is the time it takes the driver to recognize danger and react to the situation by applying the brake. Second is the time from when the brake is fully applied to the when the vehicle completes a full stop. These two measures of time are added up and multiplied by the speed that the vehicle is travelling. This gives us a total distance the vehicle will travel before completing the stop.



At Alberta Driver Education & Training we believe that having the proper knowledge and experience is the key to improving reaction time and reducing total stopping distance.