Following Distance

How closely can you follow the vehicle in front of you and still be safe? The answer depends on road, traffic and weather conditions—and on the size of your vehicle.

Large Vehicles Need More Time To Stop

Ordinary cars on good roads need to allow at least two seconds following time in dry, daytime conditions. The time should be increased at night, in heavy traffic or in bad weather. But large vehicles need to start out with more following time—at least four seconds—even under perfect conditions. Here's why.

It's a Matter of Momentum

A vehicle's stopping distance is simply the distance the vehicle travels before it comes to a full stop. It's a combination of the driver's reaction distance and the vehicle's braking distance. While a driver's reaction distance is the same no matter what size the vehicle is, the braking distance depends on the size of the vehicle. The bigger the vehicle, the more momentum it carries, and the harder it is to stop. The greater stopping distance of a large vehicle translates into a need for greater following time in which to stop.

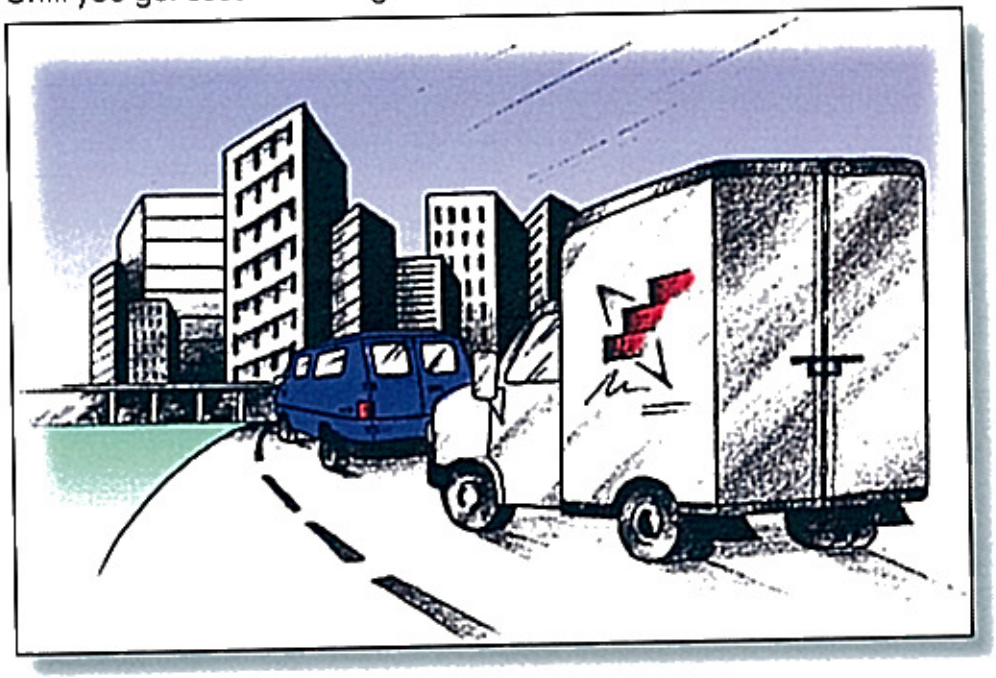
Allow at least four seconds following time for any large vehicle under ideal conditions. This includes vehicles towing trailers. Add more time if the trailer being towed is more than 20 feet long.

When the Going Gets Tough

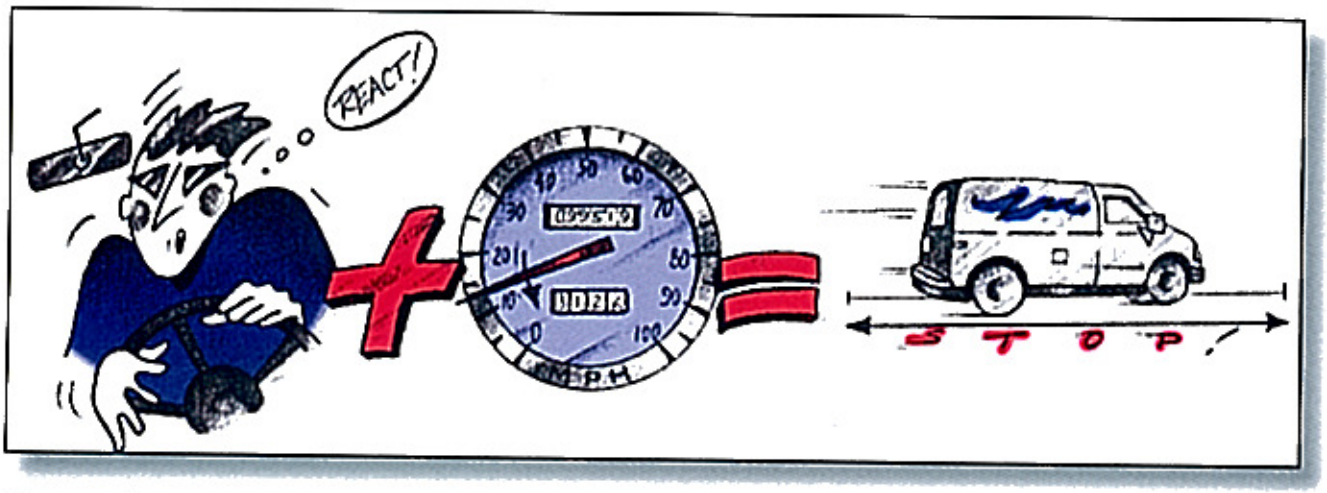
Under adverse conditions, add extra time. Add one second each for such conditions as rain, snow, darkness and heavy traffic. Thus, a safe following time for you at night in the fog may be six seconds or more.

Safety Takes Practice

Until you get used to driving with an increased following time, check yourself from time to time. Start counting seconds when the vehicle in front of you passes a landmark such as a telephone pole or milepost. How far did you count? Remember, allow at least four seconds under ideal conditions, more if road or weather aren't perfect.



Stopping Distance Formula



Reaction Distance + Braking Distance = Stopping Distance

All drivers take a fraction of a second to react before putting on the brakes. This time translates into reaction distance—the distance your vehicle will travel in the time it takes you to move your foot from the accelerator to the brake pedal. To figure your reaction distance in feet, take the first digit of your speed and add it to the total speed.

Speed	+	First Digit	=	Reaction Distance
20 mph	+	2	=	22 feet

In other words, at 20 miles per hour, your vehicle will travel 22 feet in the time it takes you to move your foot from the accelerator to the brake pedal. The faster you're going, the further your vehicle will travel before you can hit the brakes.

Speed	+	First Digit	=	Reaction Distance
55 mph	+	5	=	60 feet
65 mph	+	6	=	71 feet

Braking distance is also determined by speed. Here are braking distances for some speeds:

At—	Braking distance is—
20 mph	18 to 22 feet
55 mph	192 to 224 feet
65 mph	267 to 316 feet

Now we can calculate the stopping distance for these speeds:

At—	Reaction Distance	+	Braking Distance	=	Stopping Distance
20 mph	22 feet	+	18 to 22 feet	=	40 to 44 feet
55 mph	60 feet	+	192 to 224 feet	=	252 to 284 feet
65 mph	71 feet	+	267 to 387 feet	=	338 to 387 feet

It's easy to see that stopping distance is very much greater at high speeds than at low speeds. The faster you are going, the greater the distance you must allow between you and the car in front of you for safety.

How Close is Too Close?

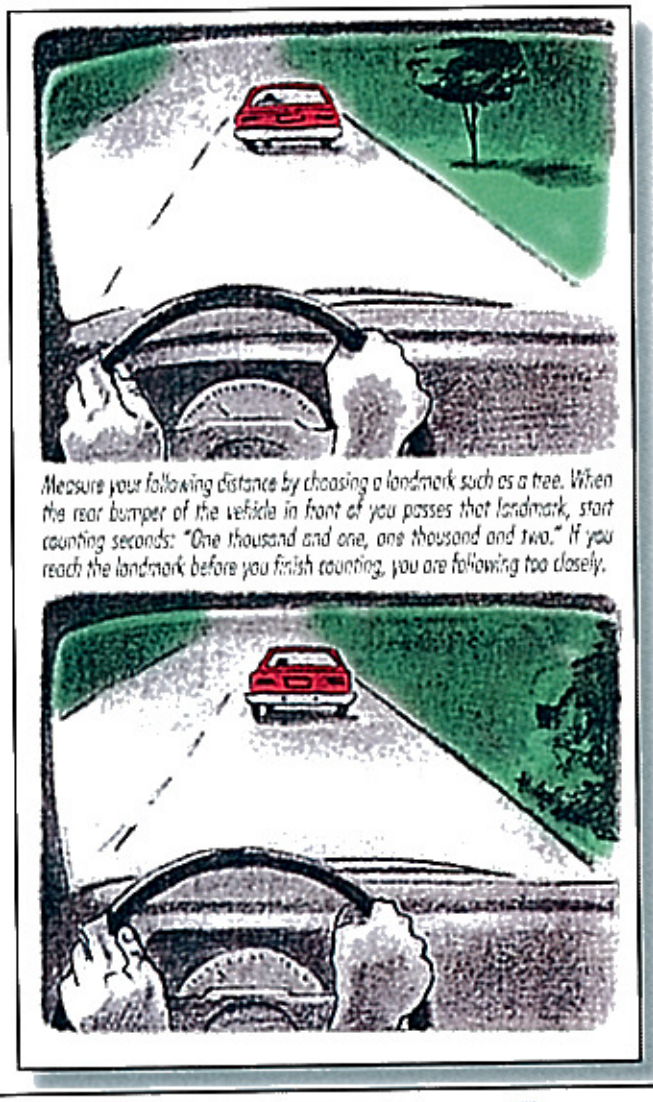
If the car in front of you stops suddenly, you need to be far enough behind it so that you can stop in time to avoid a collision. But how far is that? Your safe following distance depends on how fast you are going and what the road conditions are. The two-second rule is a convenient way to figure your safe following distance at various speeds without having to do calculations with numbers.

The TwoSecond Rule

The Two-Second Rule says that your following distance should be at least two seconds travel time behind the vehicle in front of you. Measure your following distance this way: Choose a landmark such as a telephone pole or tree that the vehicle in front of you has not yet passed. When the vehicle's rear bumper passes that landmark, start counting seconds: "One thousand and one, one thousand and two." If your front bumper reaches the landmark before you finish counting, you are following too closely.

The TwoSecond Plus Rule

Two seconds is the minimum following distance you should maintain. It applies to daytime driving in good weather conditions and at speeds less than 40 miles per hour. Use the Two-Second Plus Rule when traveling at higher speeds, when visibility is low, or when weather or road conditions are less than ideal.



Measure your following distance by choosing a landmark such as a tree. When the rear bumper of the vehicle in front of you passes that landmark, start counting seconds: "One thousand and one, one thousand and two." If you reach the landmark before you finish counting, you are following too closely.

Under the Two-Second Plus Rule, you should maintain a following distance of two seconds plus additional seconds for each additional driving condition.

If	Add
you're traveling at more than 40 miles per hour	2 seconds
you're driving at night	1 second
the vehicle in front of you is a motorcycle	1 second
there is fog or poor visibility	1 second
the pavement is wet	1 second
you're being tailgated	2 second
if the tailgating vehicle is a tractor-trailer or bus	4 second
you're towing a trailer	2 second

If several conditions apply, add up the extra seconds for all of them. For instance, if you are driving behind a motorcycle in the fog, add two seconds, for a total of four seconds following distance.

Practice Often

Use the Two-Second Rule and the Two-Second Plus Rule to check your following distance from time to time when you are on the road. By doing this, you will learn to automatically maintain a safe following distance in all conditions.

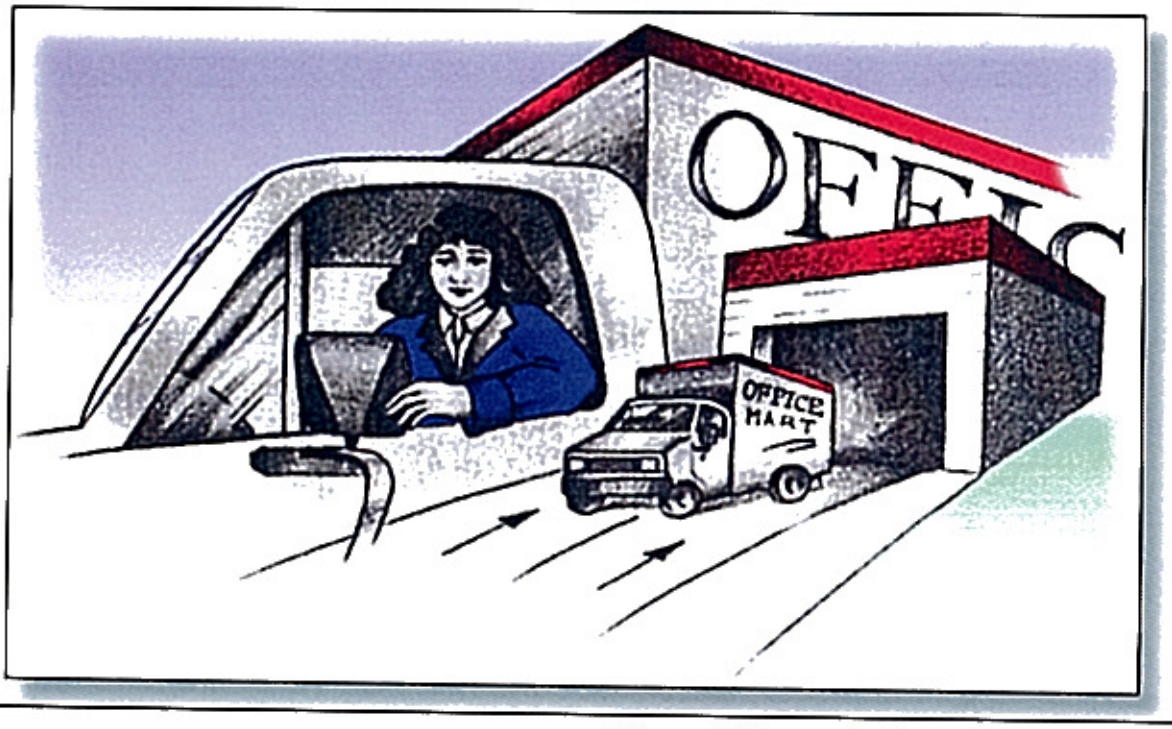
Backing Up

The first rule of backing up a large vehicle is "don't do it if you don't have to." The larger the vehicle is the more difficult it is to maneuver even going forward. Backing up is twice as hard. More important, it's impossible to see what's behind you in a large vehicle. But if you must back up, follow these suggestions.

- Whenever possible, position your vehicle to back up straight, not on a curve.
- If you must back on a curve, back toward the driver's side if possible. It's the side you can see best.
- Position your vehicle to back up out of traffic, not into it. This means it's better to back into a driveway and drive forward out of it than the reverse.
- Never begin backing up until you know you are clear. The best way is to use a spotter, who can then guide you into place. If you don't have a spotter, get out and look. Check not only behind your vehicle, but on the sides as well. Don't forget to check for overhead clearance. Many garages and loading areas were not designed for the increased height of larger vehicles. Get out again midway through the backing up process if you're at all unsure about what's behind you.
- Use your mirrors to help you back up safely.

Backing Up Trailers

Backing up is more complicated if you're towing a trailer. The towing vehicle has to follow an S curve. First you turn the front in the opposite direction from where you want the rear end to go. (If you place one hand on the bottom of your steering wheel, the trailer will move in the same direction as your hand.) Then you straighten out and follow in the same direction as your trailer. Don't over steer; you could jackknife. Better yet, position yourself so you can back up straight. Mastering the techniques of backing up will eliminate one of the major headaches of driving large vehicles. But the best technique still remains: plan ahead and avoid backing up whenever possible.



Intersections

A lot goes on at an intersection. In fact, over half of all city crashes happen at intersections. Let's look at some different kinds of intersection controls and how to deal with them.

Traffic Lights

Everyone knows that green means go, red means stop, and yellow means speed up to get through the intersection before the light changes. Right? Wrong. In some states it is actually illegal to speed up on a yellow light. And it never makes good safety sense. The purpose of a yellow light is to allow you to stop without skidding before the light turns red.

When a light has been green for a while, approach the intersection slowly, with your foot over the brake, so that you are prepared to stop. After a light turns green, be cautious about going into an intersection. Remember that traffic lights don't stop cars. People stop cars. There may be cross traffic that continues after the light changes.

Stop Signs

A stop sign means just that—bring your vehicle to a full stop. A rolling stop is illegal and can get you a ticket. Remember that a flashing red light means the same as a stop sign.

Know The Right-of-Way Laws

Misunderstandings about right-of-way are responsible for many traffic accidents in intersections. Here are some right-of-way guidelines:

- Traffic going straight has the right-of-way over traffic making a turn.
- Traffic at stop or yield signs must wait for cross traffic without signs to clear.
- At a four-way stop or uncontrolled intersection—one with no signs—always yield the right-of-way to a vehicle already in the intersection. If two cars arrive at the same time at adjacent corners, the car on the left must yield to the car on the right.
- If traffic on the other side of the intersection is backed up to the intersection, stay out of the intersection until traffic clears.
- Always yield to pedestrians.
- Never insist on the right-of-way if another driver does not yield to you. It's better to give in than to be "dead right." However, avoid giving up your right-of-way just to be polite. It confuses people and delays traffic.

Turning

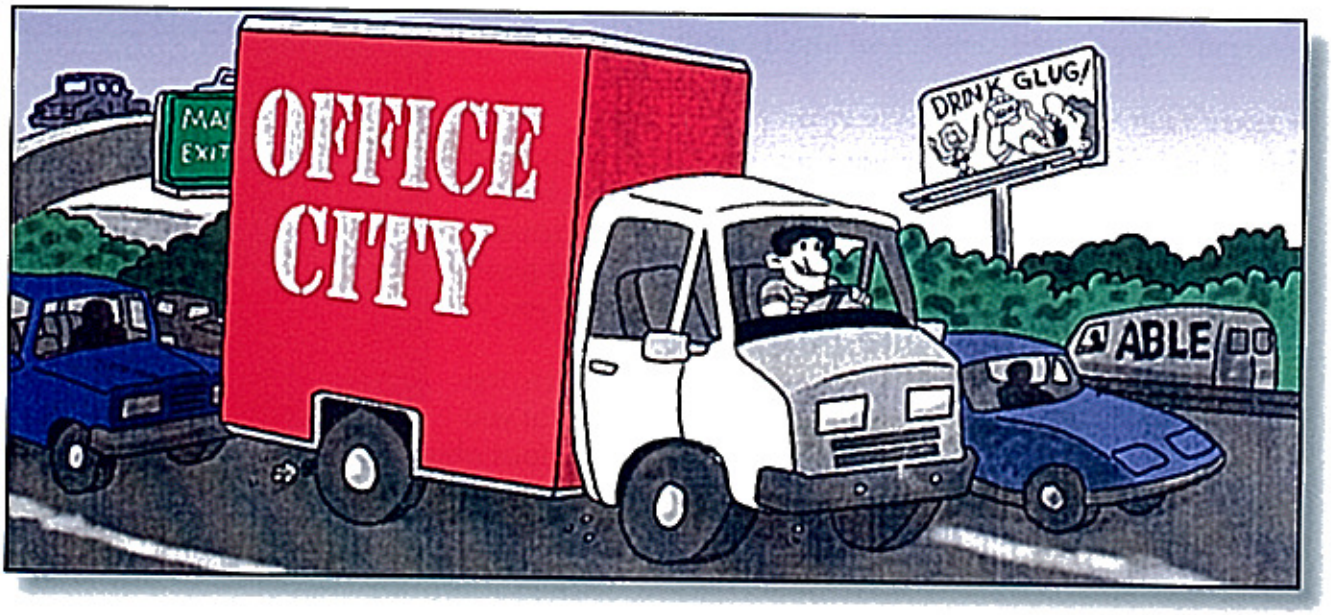
Always use your turn signal for at least 100 feet—one third the length of a football field—before turning or changing lanes. When turning, always turn from the lane closest to the direction you are turning in, to the lane nearest the direction you have come from.

There are three keys to safety in intersections:

1. Know traffic and right-of-way laws governing intersections in your state.
2. Slow down and scan oncoming and cross traffic when approaching any intersection. Be ready for anything, including drivers who do not know the right-of-way laws.
3. Signal your intentions by your position and turn signal if necessary.

Following these three rules will guarantee your safety in any intersection.

When Someone's On Your Tail



Few things are more nerve-wracking on the road than someone driving 10 feet behind you at 60 miles an hour. You know that in a sudden stop, the tailgater is likely to plow right into you. It's understandable and tempting to want to put such people in their place. But your main concern should be your own safety and the safety of others on the road.

Allow Extra Distance In Front Of You

When someone is tailgating you, slow down gradually until you have doubled your distance from the car in front of you. In ordinary driving conditions, this means allowing at least four seconds time between when the car in front of you passes a landmark and when you reach the same landmark. This will accomplish two things. First, if you need to stop suddenly, there will be some extra space in front of you so if the car behind you hits you it won't push you into the car in front of you. And second, it may motivate the tailgater to back off or pass you.

Resist Revenge

Avoid responding to a tailgater by speeding up or by hitting the brakes. You'll only be increasing your risk in an already dangerous situation. Instead, make it as easy as possible for the tailgater to pass you up. On the road, you're always better off repaying rudeness with courtesy.

Tailgaters are an increasingly common nuisance on our busy highways. With so many tailgaters, you must be extra alert for unexpected hazards, regularly scanning the road several cars ahead and observing your rearview and sideview mirrors every five seconds. Staying alert is your best defense against the poor driving habits of others on the road.