

Wheels: An e-mail from Bruce says, “A family member (sister-in-law) made a comment to me one day that she could wait to apply the brakes because they stop faster and in a shorter distance since she has all four wheels with ABS. I told her she was nuts. The ABS only prevents skidding and keeps the car in line by not allowing the wheels to lock up. This allows her to keep control of the car, but waiting longer to apply the brakes is just asking for an accident because ABS brakes do not stop the car in a shorter distance and especially, not shorter if you simply wait too long to apply the brakes. Can you help explain this to her?”

Halderman: I agree with you that a driver should not delay applying the brakes. As you indicated, antilock braking systems (ABS) are not a type of brakes, but rather include sensors and the hydraulic control unit that controls the operation of standard brakes. The brakes at each wheel are almost the same as the brakes on a similar vehicle not equipped with ABS. So what are the differences? If equipped with an antilock braking system, the additional components include:

- Wheel speed sensors are located at the wheels or differential assembly in the rear on many trucks
- An electro-hydraulic control unit that pulses the brakes on and off if a skid is detected by the wheel speed sensors.

As you stated, vehicles equipped with antilock brakes cannot stop in a shorter distance than non-ABS equipped vehicles. The major purpose of antilock brakes is to provide vehicle control during braking. In fact, a vehicle can stop in a shorter distance in deep snow and gravel if the vehicle is not equipped with antilock brakes. Under these conditions, the wheels tend to cause the gravel and the snow to build up in front of the tires, reducing the stopping distance. The bottom line is to always, drive cautiously and brake early to save gasoline and reduce the wear on the brakes and tires.

