



Weekly Safety Topic

Driving on Snow and Ice

10 Safety Tips

Regardless of your driving skill or vehicle preparation, there are some winter conditions that can't be conquered. But these tips may help prevent snowy and icy roads from ruining your day.

1. **Get a grip.** To have adequate snow traction, a tire requires at least 6/32-inch deep tread, according to The Tire Rack. (New passenger-car tires usually have 10/32-inch of tread.) Ultrahigh-performance "summer" tires have little or no grip in snow. Even "all-season" tires don't necessarily have great snow traction: Some do, some don't. If you live where the roads are regularly covered with snow, use snow tires (sometimes called "winter tires" by tiremakers). They have a "snowflake on the mountain" symbol on the sidewall, meaning they meet a tire-industry standard for snow traction.
2. **Make sure you can see.** Replace windshield wiper blades. Clean the inside of your windows thoroughly. Apply a water-shedding material (such as Rain-X) to the outside of all windows, including the mirrors. Make sure your windshield washer system works and is full of an anti-icing fluid. Drain older fluid by running the washers until new fluid appears: Switching fluid colors makes this easy.
3. **Run the air-conditioner.** In order to remove condensation and frost from the interior of windows, engage your air-conditioner and select the fresh air option: It's fine to set the temperature on "hot." Many cars automatically do this when you choose the defrost setting.
4. **Check your lights.** Use your headlights so that others will see you and, we hope, not pull out in front of you. Make sure your headlights and taillights are clear of snow. If you have an older car with sand-pitted headlights, get a new set of lenses. To prevent future pitting, cover the new lens with a clear tape like that used to protect the leading edge of helicopter rotor blades and racecar wings. It's available from auto-racing supply sites.
5. **Give yourself a brake.** Learn how to get maximum efficiency from your brakes before an emergency. It's easy to properly use antilock brakes: Stomp, stay and steer. Stomp on the pedal as if you were trying to snap it off. Stay hard on the pedal. Steer around the obstacle. (A warning: A little bit of steering goes a very long way in an emergency. See Tip 8.) If you drive on icy roads or roads that are covered with snow, modify your ABS technique: After you "Stomp" and the ABS begins cycling — you will feel pulses in the pedal or hear the system working — ease up slightly on the pedal until the pulsing happens only once a second.

For vehicles without ABS, you'll have to rely on the old-fashioned system: You. For non-ABS on a mixed-surface road, push the brake pedal hard until the wheels stop rolling, then immediately release the brake enough to allow the wheels to begin turning again. Repeat this sequence rapidly. This is *not* the same as "pumping the brake." Your goal is to have the tires producing maximum grip regardless of whether the surface is snow, ice or damp pavement.

6. **Watch carefully for "black ice."** If the road looks slick, it probably is. This is especially true with one of winter's worst hazards: "black ice." Also called "glare ice," this is nearly transparent ice that often looks like a harmless puddle or is overlooked entirely. Test the traction with a smooth brake application or slight turn of the wheel.
7. **Remember the tough spots.** Race drivers must memorize the nuances of every track, so they can alter their path for changing track conditions. You must remember where icy roads tend to occur. Bridges and intersections are common places. Also: wherever water runs across the road. I know



people who lost control on ice caused by homeowners draining above-ground pools and by an automatic lawn sprinkler that sprayed water onto a street in freezing temperatures.

8. **Too much steering is bad.** If a slick section in a turn causes your front tires to lose grip, the common — but incorrect — reaction is to continue turning the steering wheel. That's like writing checks on an overdrawn account: It won't improve the situation and may make things worse. If the icy conditions end and the front tires regain grip, your car will dart whichever way the wheels are pointed. That may be into oncoming traffic or a telephone pole. Something very similar happens if you steer too much while braking with ABS. Sadly, there are situations where nothing will prevent a crash, but turning the steering too much never helps.
9. **Avoid rear-tire slides.** First, choose a car with electronic stability control. Fortunately, ESC will be mandatory on all 2012 models. Next, make sure your rear tires have at least as much tread as your front tires. Finally, if you buy winter tires, get four.
10. **Technology offers no miracles.** All-wheel drive and electronic stability control can get you into trouble by offering a false sense of security. AWD can only help a vehicle accelerate or keep moving: It can't help you go around a snow-covered turn, much less stop at an icy intersection. ESC can prevent a spinout, but it can't clear ice from the roads or give your tires more traction. Don't let these lull you into overestimating the available traction.