

## Safety Tips for Winter Driving

1. **Get your car serviced regularly.** Preventive maintenance is key. Make sure your battery, cooling system, and windshield wipers are in tip-top shape. You'll spend less money servicing your car than you'll spend towing and fixing it if your car gives out while you're on a dark, snowy road.
2. **Buy snow tires or add chains to your existing tires if you live in a very snowy climate.** Snow tires have special treads that dig through the snow and allow the vehicle to have better traction. They're also made of a more tender type of rubber, so that they don't freeze hard in cold temperatures. Some all-season tires do not clean themselves of snow properly and become clogged in deep snow. It is best to get snow tires for the drive wheels. For rear-wheel drive, add snow tires to the rear. If your car is equipped with tires that have predominantly thin tread lines, they will clog easily, making steering or getting traction difficult. Most tire stores will insist on snow tires or studded tires to all four wheels of a front wheel drive vehicle. The rear tires should have adequate or equal traction as the front tires for proper handling and preventing fish tailing, especially when making turns. It isn't critical to have studs on all four tires of a front wheel drive car, but highly recommended so the traction is equal
3. **Practice driving in winter weather:** If you're learning to drive, or are unfamiliar with driving in snowy and icy weather conditions, practice after a storm in a large, empty parking lot with a seasoned driver. Practice how to brake safely, learn to get out of a skid, and how your car handles in winter weather. This can actually be a lot of fun!
4. **Put a few sandbags directly over the rear axle if you have a rear-drive vehicle.** The weight of the sand provides more pressure on tires to provide better traction. The sand in the bags could be used to provide traction when you're stuck by pouring some sand in front of the slipping tires. In some instances, the area over the axle of a rear wheel drive will be part of the passenger compartment. Make sure the sand bags will remain in place if you have to make sudden stops. Some people add weight to the rear of front wheel drive cars so the rear doesn't slide outward during turns. This does improve traction for the rear tires, just don't overdo it.
5. **Look ahead and keep a very safe distance from the vehicles in front of you (double the distance you normally would).** Keep scanning the vehicles in front of you and look out for brake lights. If you've kept your distance you should be able to bring your vehicle to a stop with distance to spare, instead of having to slam on your brakes and sliding into the vehicles in front of you.
6. **Ease up on the gas if your car starts to slip in place while you're trying to accelerate from a standstill.** Remember, the wheels have better traction when they are not slipping. If you have an automatic transmission put the selector lever to 2. Many cars lock the transmission in second gear to

facilitate easier starting from a slippery surface.

7. **Drive slowly and carefully.** No matter how much preparation and experience you might have, the way your car will move on snow or ice always has a big element of unpredictability. Anticipate turns and stops so you can approach them gently. Do not accelerate into turns. Coasting through the turn works best in deep snow or on icy roads.
8. **When stopping plan well in advance, apply the brakes gently, and slowly add pressure rather than fast sudden braking.** Intersections are often extremely icy so do not rely on being able to come to a stop in your normal bare pavement zone. If your car is equipped with anti-lock brakes, the best thing you can do to stop the car quickly is to apply firm constant pressure to the brake pedal. The ABS system will maintain traction, and you will be able to steer the car during braking. If your car doesn't have anti-lock brakes and the wheels do lock, release the brake and re-apply gently. Usually, repeatedly tapping the brakes has good results. Do not try to steer a car not equipped with ABS if your wheels are locked or close to locking. If there is an obstacle in your path and a collision is imminent, it is best to release the brakes to unlock the front wheels and steer around the obstacle with no gas pedal applied.
9. **There is much confusion caused by the ambiguity used when instructions are given regarding skidding and the direction of the skid.** A great number of people fail to realize that skidding involves the loss of grip of the rear wheels of the car (with rear wheel drive cars) and occurs when the rear of the car is trying to pass the front. To correct for any skid -let up on the gas and gently turn your wheels in the direction you want to go. It is a very natural desire to turn that way and so there is nothing complicated to have to remember which way to turn. Be careful not to over correct and do not re-apply the gas until you are again headed in the direction you want to go. If you happen to see someone in the ditch facing the opposite way they were traveling - they undoubtedly turned the wrong way or did not let up on the gas.
10. **If the car does not seem to turn, or turns too wide, easing off of the throttle lightly might do.** If not efficient, feather the brakes and steer just slightly tighter into the corner. Simply panicking and steering sharply into the corner will only reduce control.
11. **If the car is hydroplaning:** gently ease off of the throttle without lifting off of it completely. If necessary, ease off completely. If this does not help, de-clutch (in a manual transmission) or re-apply the throttle lightly (in an Automatic).
12. **Don't accelerate while turning!** When people say "accelerate," they usually mean speed up. But, remember from high school physics, that there are really three ways to accelerate (change your velocity). All of the three can cause skidding. They are (1) speeding up, (2) slowing down, and (3) changing direction. If you're doing one of the three, don't be doing another

simultaneously. For example, if you're turning, don't speed up, but rather feather the brakes.

- Steer the car smoothly, but work out the ability to turn the wheel quickly, but still smoothly enough to not jerk the car. In sharp corners, a quick turn of the wheel will induce an ideal, although slightly delayed, response. If the car does react with a delay, do not steer even more, but wait for it to respond while staying lightly on the brakes.

- 13. Many people are understandably terrified of hills in wintry driving conditions.** The first thing to remember is to never apply the brakes on a hill if you can avoid it whether going uphill or downhill. Remember that the slower the wheels are moving (and that the engine is revolving), the more torque is applied. When approaching an incline, speed up slightly before reaching the hill to give you the momentum to get up the hill. Never slow down before attempting an incline or while you are on the hill. Declines are perhaps more difficult to deal with. When approaching a decline, slow down before you reach the hill, then coast down the hill as safely as you can. On long steep declines, coast as long as you can, but **DO NOT** let your car get out of control. Judiciously apply the brake to keep your speed to a manageable level. On cars with manual transmissions and where it is legal, engine braking is invaluable in dealing with declines in winter weather.
- 14. If the car's front windshield is overridden with fumes, turning the A/C on air-recirculation, with a front window slightly open, will remove the moist more quickly, unless the inside of the car is very hot and moist, where the A/C is better turned on "Fresh Air".**