Winter Driving, are You Ready?

Winter driving can be inconvenient, annoying, even infuriating. But you can offset those aggravations and minimize the special risks of winter driving. The main thing is to give yourself plenty of time to get to where you are going. Visibility is another big hazard of winter driving. In heavy snow, keep you lights on. Stop and clean your windshield and lights if necessary. Get off the road before you get stranded by worsening weather conditions.

Getting started

Here are some routine precautions to help you avoid starting problems:

- Get an engine tune-up in the fall.
- Switch to winter-weight oil if you aren't already using all-season oil.
- Be sure all lights are in good working order.
- Have the brakes adjusted.
- Battery and voltage regulator should be checked.
- Make sure battery connections are good.
- If the battery terminal posts seem to be building up a layer of corrosion, clean them with a paste of baking soda and water. Let it foam, and then rinse with water. Apply a thin film of petroleum jelly to the terminal posts to prevent corrosion, and reconnect.
- Be sure all fluids are at proper levels.
- Antifreeze should not only be strong enough to prevent freezing, but fresh enough to prevent rust.
- Make sure wiper blades are cleaning properly. Consider changing to winter wiper blades, which are made for driving in snow. They are covered with a rubber boot to keep moisture away from working parts of the blade.
- Don't idle a cold vehicle's engine for along time to warm it up - it could harm the engine. The right way to warm up a vehicle is to drive it.

Equipment and supplies

Here's what you'll want to have on hand, especially in an emergency:

- Snow shovel.
- Scraper with a brush on one end.
- Tow chain or strap.
- Tire chains.
- Flashlight (with extra batteries)
- Abrasive material (cat litter, sand, salt, or traction mats).
- Jumper cables.
- Warning device (flares or reflective triangles).
- Brightly colored cloth to signal for help.
- Empty coffee or similar type can containing candles, matches (in a watertight container) or a lighter, high-energy food (dried fruit, for example).

COFFEE CAN SURVIVAL KIT. . .

Here's how to make your own:

- 2 or 3 pound coffee can (punch 3 holes at the top of can, equal distance apart)
- 60-inch length of twine or heavy string (cut into 3 equal pieces - used to suspend can)
- 3 large safety pins (tie string to safety pins and pin to car roof interior to suspend can over candle)
- 1 candle 2" diameter (place on lid under suspended can for melting snow)
- 1 pocket knife, reasonably sharp (or substitute with scissors)
- 3 pieces of bright cloth 2" wide x 36" long (tie to antenna or door handle)
- Several packets of soup, hot chocolate, tea, bouillon cubes, etc. (mixed into melted snow to provide warmth and nutrition)
- 1 small package of peanuts (provides protein) & fruit-flavored candy (orange slices, jelly beans, etc.-avoid chocolate)
- 1 pair of athletic socks (cotton) and 1 pair of glove liners (cotton)
- 2 packages of book matches
- 1 sun shield blanket or 2 large green or black plastic leaf bags (to reflect body heat)
- 1 pen light and batteries (keep separate)

When complete, place stocking cap over kit and carry in passenger compartment of car. If you have a 3-pound can, you will still have additional room for Band-Aids, aspirin, small radio, etc. If there is still room left, increase the quantity of any of the above items or improvise items you feel might be necessary.

- Sleeping bags or blankets, ski caps, and mittens.
- First aid supplies.
- Compass.

Remember hypothermia ***(rapid loss of body temperature)*** can happen to anyone!
Stay in your car until help arrives!

Getting Unstuck

If you should find yourself stuck, here's what to do:

Turn your wheels from side to side a few times to push snow out of the way. Keep a light touch on the gas, and ease forward. Don't spin you wheels - you'll just dig in deeper. Rocking the vehicle is another way to get unstuck. (Check your owner's manual first - it can damage the transmission on some vehicles.) Shift from forward to reverse, and back again. Each time you're in gear, give a light touch on the gas until the vehicle gets going. Front-wheel drive vehicles, snow tires should be on the front - the driving axle - for better traction in mud or snow.

If You Get Stranded...

You may feel helpless, stuck in the snow in a lonely place - but there are things you can do to survive until help reaches you.

- Stay in the vehicle.
- Don't wander and get lost or frostbitten.
- Run the engine for heat about once every hour, or every half-hour in severe cold.
- Clean snow from around the end of the tail pipe to prevent carbon monoxide buildup.
- For extra heat, burn a candle inside a coffee can - but don't set the can on fabric.
- Make sure the vehicle is NOT air tight, by opening a window a little.
- Clear outside heater vents. That's the grill under the windshield.
- Avoid alcohol. It lowers body temperature and will cause you to become drowsy.
- Leave one window cracked open.
- Freezing winds and driving, wet snow can quickly seal a vehicle.
- Signal to other motorists that you're stranded by using flares or flashlights, or by tying a piece of brightly colored cloth to the radio antenna.

Winter Driving

Winter is the most difficult driving season. Not only do you have snow and ice to deal with, but there are fewer hours of daylight as well.

- Before winter weather arrives, make sure your vehicle is in good condition, especially the tires.
- Make sure you've got good snow tires, and put them on early. Try not to get caught without them in the first snowfall. Never combine radial and non-radial tires on the same vehicle. On front-wheel drive cars, it's best to put snow tires or "all-season" tires on all four wheels, not just the front.
- If you must drive, clear the ice and snow from your vehicle, all windows and windshield wipers. Be sure the windshield washer reservoir is adequately filled with a freeze-resistant cleaning solution.
- Plan Your Route
    - Be familiar with the maps/directions to avoid confusion
    - Check the weather reports and adjust starting time
    - Let others know how you are coming and when you'll arrive
- Always fill the gasoline tank before entering open country, even for a short distance, and stop to fill-up long before the tank begins to run low. Keeping the gas tank as full as possible will minimize condensation, providing the maximum advantage in case of trouble.
- A Citizens Band (CB) radio and/or cellular phone can be very useful to you or another stranded motorist in case of an emergency. Remember, pull of the road to talk on a cellular phone.

Drive slowly. Even if your vehicle has good traction in ice and snow, other drivers will be traveling cautiously. Don't disrupt the flow of traffic by driving faster than everyone else. Remember how far it takes to bring your car to a stop on dry pavement? In winter conditions, allow at least 3 times that distance to reach a full stop and avoid skidding. This means your safe distance behind the car in front of your should be 3 times as far. And you must begin braking 3 times as far away from the stoplight or corner where you turn. In a rear-wheel drive vehicle, you can usually feel a loss of traction or the beginning of a skid. There may be no such warning in a front-wheel drive, however. Front-wheel drives *do* handle better in ice and snow, but they *do not* have flawless traction, and skids can occur unexpectedly. Don't let the better feel and handling of a front-wheel drive car cause you to drive faster than you should.

Despite a popular misconception, the best approach to recovering from a skid is the *same* for the front and rear-wheel drive vehicles. If your *rear wheels* start to skid:

- Turn the steering wheel in the direction you want the front wheels to go. If your rear wheels are sliding left, steer left. If they're sliding right, steer right.
- If your rear wheels start sliding the other way as you recover, ease the steering wheel toward that side. You might have to steer left and right a few times to get your vehicle completely under control.
- If your car has an anti-lock braking system (ABS), keep your foot on the pedal. If not, pump the pedal gently, pumping more rapidly as your car slows down. Braking hard with non-anti-lock brakes will make the skid worse.

If your *front wheels* skid:

- Take your foot off the gas and shift to neutral, but *don't* try to steer immediately.
- As the wheels skid sideways, they will slow the vehicle and traction will return. As it does, steer in the direction you want to go. Then put the transmission in "drive" or release the clutch, and accelerate gently.

To avoid skids, brake carefully and gently on snow or ice. "Squeeze" your brakes in slow, steady strokes. If your vehicle has anti-lock brakes *do not* pump the brakes, apply a steady pressure. Allow the wheels to keep rolling. If they start to lock up, ease off the brake pedal. As you slow down, you may also want to shift into a lower gear.
When sleet, freezing rain or snow starts to fall, remember that bridges, ramps, and overpasses are likely to freeze first. Also be aware that slippery spots may still remain after road crews have cleared the highways.

ICE

Expect icy conditions any time the outside air temperature reaches 40 degrees F or lower. Although water freezes at 32 degrees F, road surface can freeze when the air temperature drops to 40 degrees or less. An important place to watch for this condition is on bridges. Bridge surfaces are exposed to the wind and cool off faster than the rest of the road. You should also prepare for icy conditions on roads through shaded areas where a cold wind can freeze a wet road surface.

WHITE ICE

Snow that has been compacted during the day and has slightly melted will freeze at night. Usually this white ice can be seen on the road. When traveling on white ice, drive very slowly. If you cannot find a place to park until conditions improve, install tire chains for better traction.

BLACK ICE

Black ice, clear water that has frozen on black pavement, usually forms below overpasses, on bridges, in areas that are surrounded by landscape or on a source of water running across pavement. Black ice commonly occurs in low, shaded areas and/or when the road surface starts to freeze at night. You usually cannot see or feel this ice until the vehicle is already on it. You may not expect a patch of ice because you've been driving on dry, clear pavement. It may be an area where melting snow or a roadside spring caused water to run onto the road and freeze. If you are not aware that the water has frozen, you could lose control and the vehicle could skid.

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Winter Maintenance
Procedures and Driving Advice

With the plows and sanders out on the roadway, motorists are advised to be aware of a few safety tips when they encounter the snow and ice control operations

- Remember that the road in front of the plow is usually in much worse condition than the roadway behind the plow. D.O.T. plows will typically travel at about 25 miles per hour and there is always the temptation to try and pass them. It is difficult for the operator to see vehicles behind the plow until they pull into the adjacent lane to pass and the driver also may have limited visibility due to the blowing snow from the plow blade. It's a good idea to remain well behind the plow until you reach your destination.
- When trucks are putting sand down on the road, motorists should keep several car-lengths behind at all times. There is always a risk of damage due to the flying sand and the operator may have to stop the sanding to let a vehicle pass, thus leaving a portion of the highway without traction sand on the surface. The spreading system is designed to spray the sand into both lanes. Drivers can see oncoming cars and will attempt to stop sanding when they meet.
- On many two-lane state highways, drivers may encounter plows with their blades extending slightly into the opposite lane. This is necessary to clear the centerline for safety purposes. Motorists should move to the right portion of their lane to allow the oncoming plow by. The majority of state highway lanes are 12 feet wide and offer sufficient space for most vehicles.
- In severe conditions, in a major snowstorm or with blowing snow from the plow, motorists may not see the rear lights and flashing beacons on the plow until the very last moment. There have been incidents where motorists have collided with the back of snowplows or sanders when they failed to see the equipment in front of them. Drivers need to slow down during severe weather conditions for their own safety, the safety of the maintenance personnel and other drivers. Remember, the plows will travel only as fast as conditions allow.

Motorists are reminded that there are many miles of roads and highways to maintain and, under average conditions, some sections of roadway may only receive attention once or twice per day. Drivers need to be alert for changing surface conditions and reduce their speed during the winter months.

Winter driving requires motorists to be extra careful and alert, but the most important tip for winter driving is: **Slow down**

Winter Driving Quiz

1. If your car is covered with snow, the minimum you should do before driving is:

○ a. Brush off the windows, clear a good peep hole on the driver's side, and let the defrosters do the rest as you drive.

○ b. Brush off the windows and thoroughly clear a space one-foot square to enable you to see out the front and back windows.

○ c. Clear all snow off windows, roof and hood, and scrape the ice off all windows.

2. Below -4° F (-20° C) the following condition does NOT occur:

○ a. Tire chains cease to be effective for traction.

○ b. Sand ceases to increase traction.

○ c. Snow tires loose their ability to bite into snow.

3. When you get stuck on ice or hard packed snow do NOT:

○ a. Spread sand under the tires.

○ b. Gently rock the car back and forth by shifting from forward gear to reverse using the brakes to hold the vehicle between shifts.

○ c. Apply pressure on the gas, keeping your wheels straight, and move out of the situation as quickly as possible.

4. If you don't have ABS and must stop quickly in icy or snowy conditions:

○ a. Apply strong, steady pressure to the brake pedal and don't let up.

○ b. Pump your brakes.

○ c. Slam your foot on the brake pedal at once.

5. If you go into a skid on ice:

○ a. Apply the brakes to slow yourself down.

○ b. Over steer to compensate for the direction of the skid.

○ c. Take your foot off the accelerator and declutch or shift to neutral.

○ d. All of the above.

Answers to Winter Driving Quiz

1. If your car is covered with snow, the minimum you should do before driving is:
c. Clean all snow and ice off all windows. Also remove loose snow from the hood and roof to prevent it from blowing up on the windshield or drifting over the back window as you drive. Don't be a peep hole driver, and ensure all windows are defrosted before starting out.

2. Below -4° F (-20° C) the following condition does NOT occur:
c. Snow tires do not loose their effectiveness at low temperatures. But remember they are designed to help you on unpacked snow and are little help on ice or hard packed snow. Tire chains and sand gives you traction at temperatures closer to the freezing mark, but not at very low temperatures. Always approach ice or hard packed snow with care.

3. When you get stuck on ice or hard packed snow do NOT:
c. If you apply too much power you will just spin your wheels. Rather, use the "easy does it" approach when starting on icy surfaces. Clear away snow from around the tires and create traction. Rocking the car allows you to increase the distance traveled with each rock.

4. When you have to stop quickly in icy or snowy conditions:
a. But stop short of locking your wheels. The best defense is to leave a greater distance between your vehicle and the one ahead of you, and to reduce your speed to decrease your stopping distance. Slamming your brakes could lock the wheels and produce an uncontrolled skid. However, with anti-lock brakes (ABS), c is a valid answer.

5. If you go into a skid:
c. Do not put on your brakes. Follow your natural impulse and steer to keep the car going in its original direction, but don't over steer. When you feel the car regaining traction, start to straighten your wheels. Be prepared to handle a skid in the opposite direction.