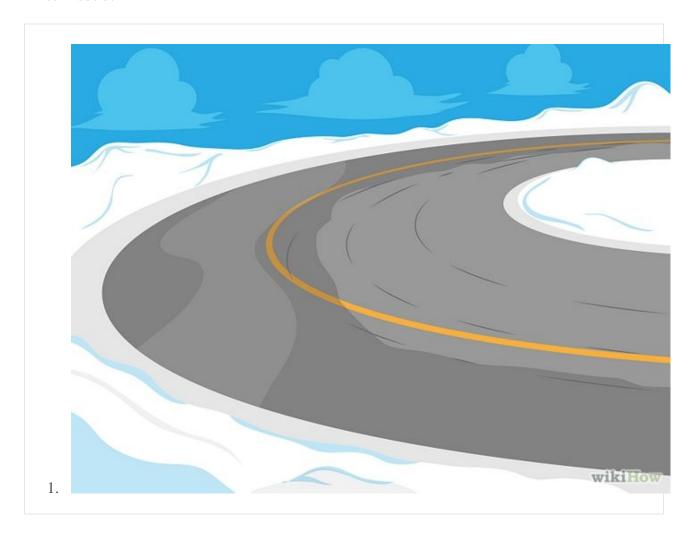
How to Drive on Black Ice

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Winter driving isn't only about dealing with snow; ice on the road is a real threat. Black ice, in particular, is dangerous because it's invisible (the term "black ice" being somewhat of a misnomer, as the ice is transparent). However, you can protect yourself by understanding and knowing how to deal with this winter issue.



Understand that black ice is like regular ice. It is a glaze that forms on surfaces (especially roads, sidewalks, and driveways) because of a light freezing rain or because of melting and re-freezing of snow, water, or ice on surfaces. It's called "black ice" because it tends to look like the rest of the pavement on the road, although in reality, it's

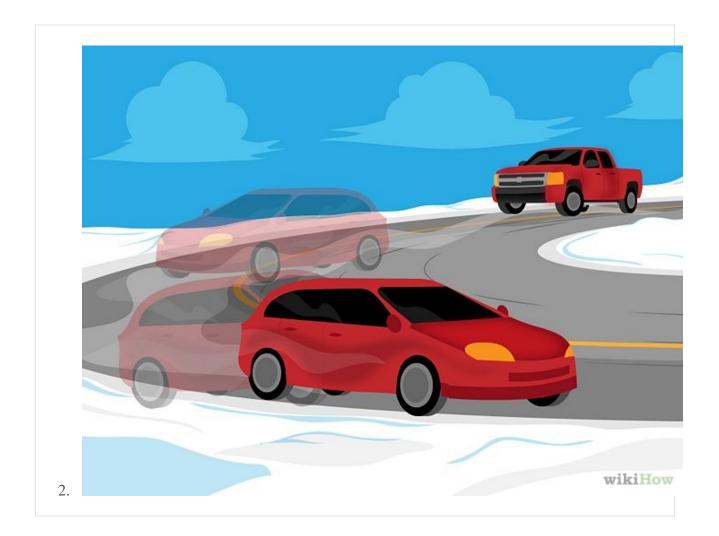
actually clear. Black ice forms without creating bubbles, which allows it to blend in with any surface it forms over. [1] Black ice is dangerous precisely because it's hard to detect in advance.



2. **Know where to expect black ice.** Black ice usually forms just about the freezing point. Sometimes in frigid weather conditions on highways, black ice will form due to the heat of tires on the road coupled with the freezing temperature. Keep an eye on the weather and highway reports.

- Black ice forms most commonly at night or in the early morning when the temperatures are at their lowest, or when the sun isn't around to warm the roads. [2]
- Black ice tends to form on parts of the road without much sunshine, such as along a tree-lined route or a tunnel. It will also form more frequently on roads that are less traveled on.

• Black ice forms readily on bridges, overpasses and the road beneath overpasses.^[3] This is because the cold air is able to cool both the top and under the bridge or overpass, bringing about faster freezing.^[4]



Know when to expect black ice. Black ice tends to form in the early morning and evening. During the daylight hours, the road is usually warmer and less likely to create black ice. But remember: less likely does not mean "never". Always be prepared for the possibility of encountering black ice.

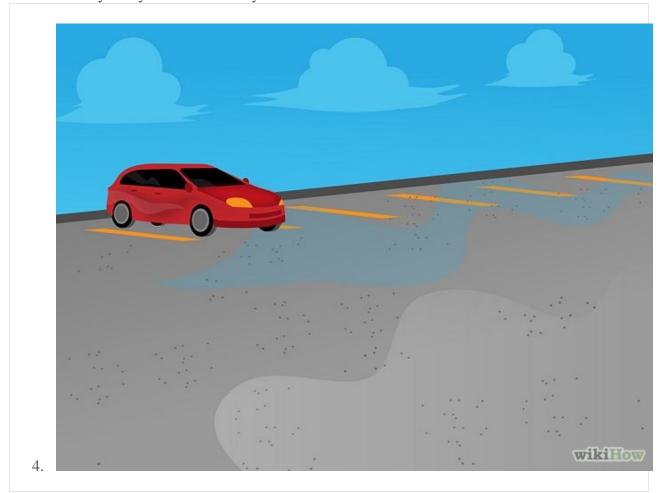
• See the signs of black ice. If you are driving and see cars suddenly swerve for no apparent reason, black ice is a likely cause.



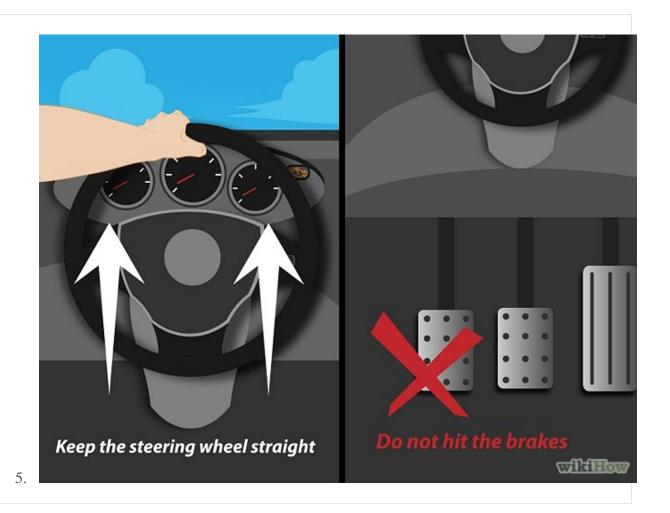
Know how to see black ice - sometimes. While black ice is transparent, it can sometimes be seen in the right lighting conditions - if you are looking for it. Black ice almost always forms in very smooth, very glossy sheets. This glossy surface is your indication of potential black ice. If the majority of the road you're driving on appears a dull black color, but the patch just ahead of you appears shiny, you may be about to drive onto black ice - don't panic, follow the instructions below.

- This technique for helping to detect black ice won't work at night, but dawn, daylight and dusk all offer enough light to see.
- If you are unfamiliar with this glossy appearance, think of a nice new car's black spray paint compared to an older, un-kept car's black paint job.

• You won't always be able to see black ice, but looking for it can't hurt. It may also help you to stay focused in less than ideal driving conditions. Just be sure to keep your eyes on the rest of your environment as well.



Practice driving on slippery surfaces. If possible, (and with a seasoned winter driver) practice driving on ice in a safe surrounding. Find a nice, large, empty parking lot with ice on it. Drive on ice. Practice braking on ice. Understand how your car feels and handles in these conditions. Know what ABS braking feels like if you have it. Practicing this under controlled conditions can actually be a lot of fun!



Deal with a black ice encounter. If you do hit black ice, your first reaction must be to remain calm and avoid overreacting. The general rule is to do as little as possible and allow the car to pass over the ice. Do not hit the brakes, and try to keep the steering wheel straight.^[5] If you feel the back end of your car sliding left or right, make a very gentle turn of the steering wheel in the same direction. If you try to struggle against it by steering in the opposite direction, you risk skidding or spinning out (see below for what to do if this happens).

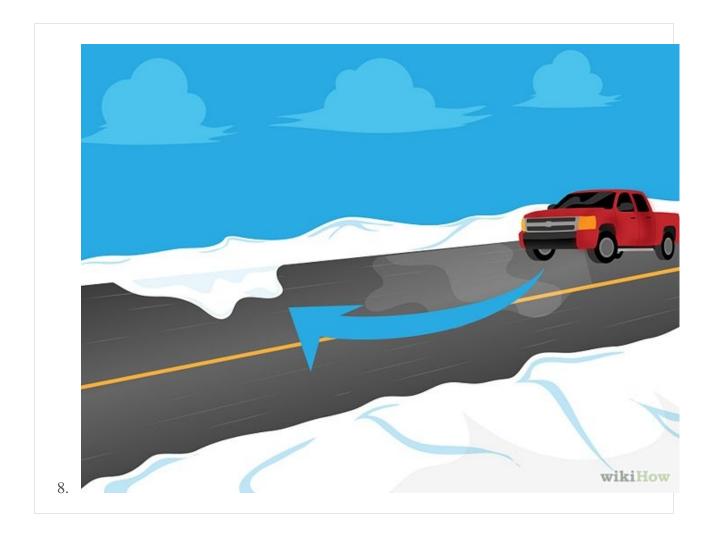


Slow down by de-accelerating. Lift your feet off the accelerator completely and keep your steering wheel fixed in the position it's in.^[6] Slowing down will give you more control and prevent needless damage.

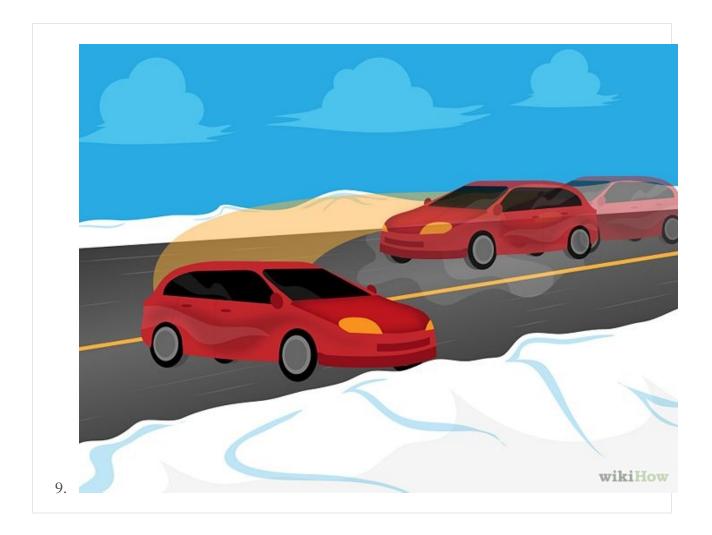
• **Do not** touch the brakes. Doing so will likely cause you to skid. The idea is to slide over the ice in the direction the steering wheel is facing; usually black ice patches aren't longer than 20 feet (6 metres).



If you can, shift into a low gear. Low gears will give you more control.



Head for areas of traction. Black ice is virtually invisible, but you may be able to head towards areas of pavement that offer more traction. Such areas of traction may include textured ice, snow-covered areas, spots with sand, etc.

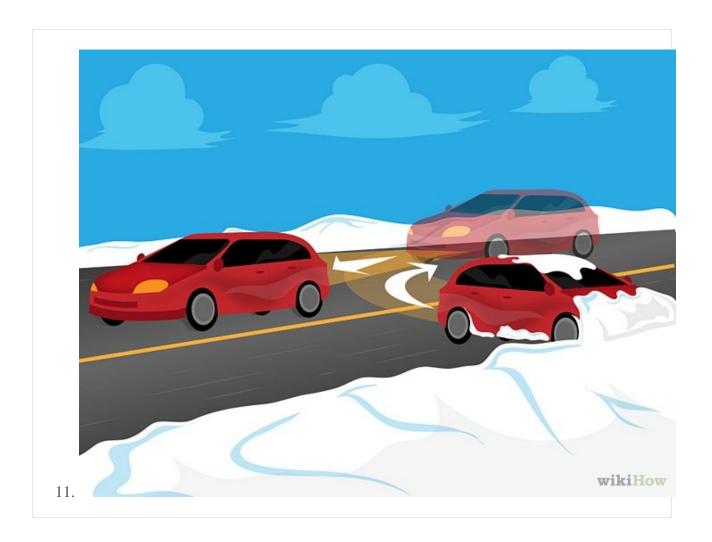


If you skid or lose traction, stay calm. Hopefully, you are now going slow and this will make it easier. Black ice is often (although not always) patchy, so hopefully your tires will soon find traction. Use the minimum amount of braking possible, although some braking will be necessary if skidding a lot, as follows:

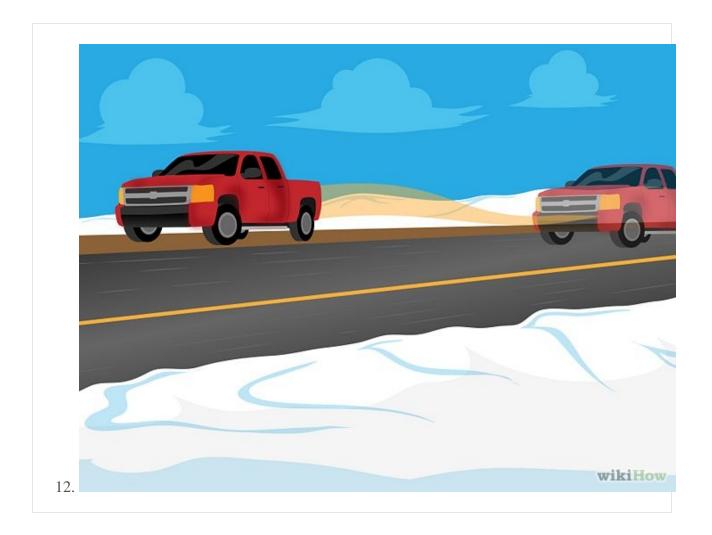
- If you have anti-lock braking system (ABS), just put your foot on the brake, apply firm pressure and the car will pump the brakes for you as you skid. [7]
- If you don't have ABS, pump the brakes gently as you skid. [8]
- Always steer the car in the direction you want the car to go.



If you end up going off the road, try to steer into things that will cause the minimum amount of damage. Ideally, steer into an empty field, a yard, or a fluffy snowbank. Of course, you may not have much choice in the matter, but you can at least try.



After the black ice encounter, stay calm. You're likely to be a bit rattled, but panicking isn't going to help at any stage. If you must keep driving, do so very, very slowly. Alert other drivers that you're going slowly by flashing your lights at all times.



Get off the road as soon as possible. It's better to wait a while at a rest stop, diner, or even on the side of the road until the road crews can salt and/or sand the roads than to deal with an accident. This will also provide you with a chance to recover your senses and feel less panicked. Have a hot drink and relax a while.

• If there is a pile up: Very rarely ice and/or black ice can make extremely hazardous conditions that can cause multi-car accidents on a highway. You will have to evaluate quickly whether staying in your car (where you have some safety protection) or getting out (where you can flee further collisions but will have to walk on icy surfaces, in freezing temperatures, with other cars spinning out of

control around you) is safer. Consider your location, the speed of travel, geographic location, your warmth, and your physical abilities.



Prevent or minimize future encounters with black ice. There are several things that you can do to reduce the chances of being surprised by black ice. While knowing how to drive on it remains a number one priority, here are some other things to do:

- Travel slowly. Don't try to speed during icy weather as this will take away any control you might have had on the black ice.
- Don't tailgate.
- Keep your windshield clear of ice, snow, dirt, and anything else that can prevent you from seeing out of it properly. To get snow and ice off the windshield of your car, you might be tempted to turn on your windshield wipers. It might seem like the wipers and the washer fluid will work, but they don't. In fact, if you use your

- windshield wipers to get ice off the windshield, you could ruin them. Use an ice scraper to scrape the ice from the windshield of your car before starting the vehicle.^[9]
- Turn your headlights on early in the afternoon to help you see any possible sheen from black ice.
- Check your tire tread. Worn tread causes accidents in any conditions, and will
 ensure you lack traction when needed on black ice. In addition, consider having
 snow tires fitted.
- An important thing to remember is to NEVER drive in potentially icy conditions with your cruise control active.

Tips

- If you have ABS brakes, know how they feel when they engage so you don't panic and that you understand what denotes slippery conditions—even if your car is still in control.
- Walking and cycling on black ice is also dangerous and can cause you to slip. Cyclists need to take extra care as slipping can lead you into the pathway of car and truck traffic.
- Have snow tires fitted before the temperatures drop low enough to cause black ice. This is especially important if you're traveling outside your urban areas and you're not familiar with the roads and weather conditions.
- Stay off of the phone, and don't mess with the radio. Pay attention to the road or you might wreck!
- A good tip for any ice driving is to avoid sudden movements. Quickly turning your tires, accelerating or braking can cause you to lose traction.
 One way to adapt your driving style to winter travel is to imagine an egg between your foot and the gas and brake pedals. Make it a priority to keep the imaginary egg intact. You'll find yourself driving more cautiously in no time.
- If the weather is bad and the conditions are likely to result in black ice, try to stay home and avoid driving at all.

Warnings

- 4x4 vehicles, SUVs, vans, trucks and large Pickups have a high center of gravity and are inherently unstable; so that an ice slide followed by suddenly gripping the road can easily cause the vehicle to rollover. You do not want this to happen, slow down.
- Never use cruise control in snowy or icy conditions. You need to be in full control at all times.
- If you are confused about front versus the rear in skidding: "If you *see the front end* of your car turning left or right, make a very gentle turn of the steering wheel in the 'opposite' direction." That is the same as: "If you *feel the back end* of your car sliding left or right, make a very gentle turn of the steering wheel in the 'same' direction (that the rear is skidding)."
- Remember that zero percent traction is still zero percent traction. Even if you have all-wheel drive, 4-wheel drive, or an SUV, once you lose traction the car itself won't help you. Drive safely and cautiously no matter what your vehicle is.

Sources and Citations

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