

Car Talk Winter Driving Tips

1. If your car needs regular service, get it done now. Nothing's a big deal in the summer.

You break down? So what? It's a nice night out. Look at all those stars! But break down when it's minus jaw-freezing outside, and that's a different story. Since bad hoses, belts, water pumps and spark plug wires can leave you stranded in the winter, it's better to bite the bullet and fix them. It's better than spending the same amount of money after you've been sitting in your stalled car for three hours waiting for AAA. (Just kidding, Triple A! No one has ever had to wait three hours for one of your tow trucks, have they?)

Here's one service item that's often forgotten: tire pressure. Ask your mechanic to check it, or do it as soon as winter arrives. Why? Because tire pressure drops by about one pound per ten degrees of temperature. So, if it's -10 now, and the last time you checked your tire pressure was back during that sweltering heat wave in July, your tires will be dangerously low and will jeopardize your car's handling.

Many newer vehicles have tire pressure monitors, which alert you to dangerous changes in tire pressure. In fact, as of 2008, tire pressure monitors are required on all new vehicles. But older cars don't have them and the pressure needs to be checked manually.

2. Make sure your battery and charging system are up to snuff.

Your mechanic should check the battery, charging system, and belts. Your battery can leave you stranded simply because it's old and lousy. Or it could leave you stranded because your charging system isn't working well, and the battery isn't getting charged properly. So have your mechanic check the battery and charging system.

If you find that you need a new battery, get the biggest, meanest, ugliest battery that will fit in your car. Two things to remember about batteries: First, the battery that started your car easily in the summer may not have enough oomph to do it in winter. In winter, the engine is harder to start, because the oil isn't as "fluid" as it was last July. And secondly, batteries lose power as the temperature drops (you remember your high school chemistry, right?). So not only do you need MORE power to start the engine in winter, you also get LESS power from the same battery.

Batteries are rated by a measure called "cold cranking amps" (CCA), the maximum number of amps that the battery can deliver at zero degrees (F) for 30 seconds. Good, powerful batteries are rated at or above 600 CCA. We've never really liked this CCA rating because some batteries rated at 600 CCA can just barely make the 30-second criterion, and some can pump it out much longer - clearly better batteries. Along came our pals at Consumer Reports. When they rate batteries, they do the CCA test and report how long the battery puts out the 600 amps. Great, says us. So take a look at their ratings for the lowdown.

3. Check the cooling system.

Make certain the antifreeze will protect your car at the winter temperatures you'll experience in your area. For most areas, you'll need a 50-50 mix of coolant to water. You may think, "I'll be extra good to my car, and give it 100% coolant." Guess what? You're wrong. The 50-50 mix has a lower freezing point. Not only that, but 100% coolant is less able to transfer heat away from your engine, and has been known to cause such nasty things as melted spark plugs or engine failure under the wrong circumstances. So, mix it up!

Protection	Freeze-up Protection	Boilover Protection	Corrosion Protection
Minimum 50% anti-freeze 50% Water	-34°F	+265°F	Exceeds all ASTM and SAE standards for corrosion protection
Maximum 70% anti-freeze 30% Water	-84°F	+276°F	

You can check the freeze rating of your car's coolant yourself with a little device that you can buy in an auto part store for a couple of bucks. With it you suck up a little of the anti-freeze from the radiator - or the overflow container - and see how many of the little balls float. It's cute. If this is beyond you, most real gas stations will do it for you in a couple of minutes. By the way, having good coolant in your engine is very important because if the coolant freezes, it expands, and it's bye-bye engine block. And that means bye-bye to the 50-inch plasma TV you've been saving up for.

But that's still only half the story. The other primary function of antifreeze is to keep your cooling system from rusting. The rust inhibitors in antifreeze break down over time and need to be renewed. So, at a minimum, change your engine's coolant at the interval recommended by your manufacturer. Besides, draining out the coolant and refilling the system also removes dirt and rust particles that can clog up the cooling system and cause problems, regardless of the season.

There are two primary types of coolants available on the market today. The first is traditional, green-colored antifreeze, which can be used in any car. The second is a newer, long-life coolant, which comes in a variety of colors. It should only be used in recent-model cars because it may damage some of the engine gaskets in older cars. If you're not sure whether your car uses the new or old-style antifreeze, check with your manufacturer.

In a pinch, the new and the old coolants can be mixed- but if you do that, you should drain the cooling system next time your car is in for service. The rust-inhibiting additives in the two coolants can actually counteract each other and, over a long period of time, allow the cooling system to rust. It takes a long time for this damage to occur, so you don't have to rush home and drain the system. But do take care of it promptly, so you don't forget and find yourself slapping your credit card down for an engine rebuild, a few years later.

Finally, if you're driving a General Motors car that uses their Dexcool coolant, we'd suggest you pay extra attention to flushing your cooling system on a regular basis. Several years ago, early formulations of Dexcool would form sludge after mixing with air, clogging cast-iron cooling passages and generally wrecking havoc on engines. GM seems to have fixed the problem, but why take a chance? Keep an eye on it.

4. If you have leaks in the cooling system, take care of them now.

While many people think of overheating as a summer problem, cars can overheat in winter, too, if they run low on or out of coolant. And overheating can cause expensive engine damage whenever it happens. Plus, if you have no coolant - or low coolant - you have no heat!

5. Make sure your windshield wipers are in good shape.

Be sure your current wiper blades clean the windshield well, and allow you to see clearly in wet weather. Even when there's no active precipitation, water from melting snow and slush or truck tires is often thrown up onto your windshield. And if you can't see, you can't drive very well.

Winter wipers - with the rubber coverings that keep ice from collecting on the blade - have become very popular. They're great in the winter, but make sure you take them off in the spring. Winter wipers are heavy, and if you use them all summer, you'll wear out the wiper motor prematurely.

And when using your wipers in the winter, remember to turn them off BEFORE shutting off the engine. Why? Water frequently freezes overnight during the winter. And if your blades freeze to the windshield, when you go to start your car, the wiper motor may burn out trying to get them back to the "rest position," while you're sitting there wondering, "What's that burning smell?"

6. Keep your gas tank close to full..In the summer, you can take a chance and run down to fumes.

But in the winter, if you do get stuck or stranded, the engine will be your only source of heat. And you don't want to have to worry about conserving fuel and saving the planet right at that moment...you want to stay warm. You can run the engine indefinitely at idle to stay warm-or as long as you have gas. No harm will be done to the engine.

By the way, if you have an old jalopy, we suggest you crack open the window a bit if you are going to be idling the engine. Old jalopies are more likely to suffer from exhaust leaks and rust holes. This may not be a problem while you're driving because the wind is removing the exhaust as you move forward; but if you're sitting for a long time while carbon monoxide is slowly leaking into the passenger compartment, well, we could lose another listener. And we've only got six left!

Finally, if you are pulled over and stopped in the midst of a humungous snowstorm, be sure to get out periodically and remove snow from behind the tailpipe to keep it unobstructed.

7. Make sure your windshield washer reservoir is full.

On a snowy or messy day, you can easily go through half a gallon or more of windshield washer fluid trying to keep your windshield clear. For that reason, it's also a good idea to keep some extra fluid in the trunk in case you run out. And make sure you get the good stuff - stay away from the already-half-frozen stuff outside your local gas station! Even though it may say "Good to Minus 30," some of these cheap fluids freeze around zero degrees! Even if you buy the good stuff, if you live in a very cold area, you also may need to supplement your windshield washer fluid with some concentrate. The concentrate is available in one-pint bottles and works very well at extremely low temperatures.

8. A lot of folks ask us about carrying sand in the back of the car.

If you have a rear-wheel-drive vehicle that needs help in the snow, you can put a bag or two of sand behind the rear axle. This extra weight will increase the traction of the rear wheels.

So where, exactly, is the rear axle? Draw an imaginary line between the two rear wheels. That's the location of the rear axle, which is usually towards the front of the trunk.

However, you can make things worse by putting too much weight too far back. In essence, by weighing down the rear end too much, you "lift up" the front end and lose some steering and braking abilities. We suggest you start with a 20 pound bag as far back in the car as you can get it. Then, go for a ride and see how your car steers and handles.

Whatever you do, don't put the sand in the passenger compartment. In an accident, the bags can become projectiles. And who wants to be fatally dope-slapped by a 50-pound bag of sand?

On a front-wheel-drive car, don't bother with sandbags. An enormous weight (the engine, that is) is already over the wheels that are powered. Finally, remember: If you don't have sand, you can always substitute a mother-in-law. If you can squeeze her into the trunk, all the better.

9. If you live in western Siberia, northern Minnesota, or some place like that, think about adding a block heater to your engine.

That's a small electric engine heater that plugs in to your home's wiring via a regular, 120 volt AC plug, at night. It's almost required equipment for diesel engines in frigid climates. But it can be used on regular gasoline engines, too. And for less than a hundred dollars, you can be virtually guaranteed that your car will start, even on the coldest, butt-freezes-to-the-driver's-seat mornings. A side benefit of this is that you'll have instant heat in the morning. Actually, that may be the greatest benefit! One note of caution: If you do get a block heater, try to remember not to drive off with your car still plugged into your house.

10. Make sure your rear-window defroster works. In many states, the law requires that ALL of your windows be clear before you hit the road.

Now, you can always use your old Car Talk T-Shirt on the rear windows to wipe off the condensation - as long as you pull over and do it again every ten minutes. But a working rear defroster is a better solution.

11. Know your car.

Every car has different handling characteristics. You should know what your car can and cannot do in the snow. (Hint: It can't do any of the things it was doing on the TV commercial that made you buy it.) You should know if you have front, rear, part-time or full-time four-wheel drive; antilock brakes; traction control; and stability control. You should know what kind of tires are on the car, and how all those things work and how they help you or don't help you. In fact, it's not a bad idea to do a little driving in an empty parking lot on a snowy day just so you know what to expect from your car when you drive on snowy roads.

12. If you really have to drive in the snow.

That is, if you can't call in sick or tell the boss you'll be in later. If you live in an area where it snows a fair amount, you should get four good snow tires. Nothing will make a bigger difference. Because it's such a pain to get your snow tires remounted and balanced every year, splurge and get yourself four steel rims and mount the snows permanently on those rims. That'll make the changeover in the fall and spring a snap. By the way, lots of tire shops will offer to store your regular tires over the winter and then store your snow tires in the summer. This is a great deal. The only potential problem is that when they file a Chapter 11 bankruptcy, they'll have four of your tires in their basement, so you'll have to break in and retrieve them.

If you absolutely can't afford four snow tires, two new snow tires will be better than whatever you have on your car now. Mount them on the wheels that are driven by the engine. For all-wheel-drive cars, you really should use four snows.

One question we get asked frequently is, "If I have a front-wheel-drive or an all-wheel-drive car, do I need to have snow tires?" The answer is, if you really need to drive in the snow, yes. If you really, truly need to get around before the streets are plowed, four top-quality snow tires are the single best thing you can do. And the

reason you'd still want them on a car with decent traction is because they not only help get you started, they also increase your traction when you're braking and turning.

13. Make sure you have some basic supplies in your car in case you do get stuck.

Invest in a substantial snowbrush and an ice scraper. It's good to have a shovel and a bag of sand to help with traction, and the aforementioned extra windshield washer fluid. A blanket is a good idea - just in case. If you have any winter clothes you don't wear anymore, especially an old pair of boots, throw them in the trunk, too. The last item we always carry? Robert A. Caro's biography of Lyndon Johnson. It's 900 pages, so it's sure to keep us occupied until help arrives and beyond.

14. Winter driving emergencies are among the few legitimate uses for a cellular phone.

If you're cellularly inclined, and you promise not to use it to chat while you smash into other innocent people, a cell phone is certainly a plus if you get stuck.

15. If you're in an area that permits or requires tire chains, they should obviously be in the trunk, too.

And be sure you've practiced putting them on before you need them. Trust us - applying tire chains is much harder when you're knee-deep in slush in the dark and other cars are whizzing by you. If chains are too much, you may want to throw one of those ladder-like devices in your trunk. They unfold to provide a steel surface for the tire to grip if you're stuck in snow or ice. These are for sale under several different trade names, one of which is Tiger Paws.

16. Clean off your car-entirely!

Once snow or ice does arrive, take some extra time to make sure your car is clean and your visibility is good.

Clear off the entire car, not just a little peephole in the windshield. You need just as much, if not more, visibility in poor conditions because you have to keep your eyes peeled for pedestrians, and every other knucklehead on the road. Make sure every glass surface is clear and transparent by using a snowbrush and/or ice scraper. Your side-view mirrors, and all all lights should be brushed and cleared as well.

Now, if you haven't been smart enough to do so already, clean the snow off the rest of the car. Why? Because the rest of the snow will either (A) slide off the roof and cover your windshield as you're slowing down; or (B) fly off onto someone else's windshield and causing him or her to smash into you. That's not enough of a reason? Fine. Here's another: (C) it's the law in many states that your vehicle must be clear of snow and ice.

Clean your headlights. Even if you think they don't need it.

It goes without saying, that if your headlights are covered with six inches of sleet, you're not going to be seeing much past your hood ornament, nor are oncoming drivers going to see you as well. Salt, sand and other wintry crud can dramatically impair the effectiveness of your car's headlights, even long after the last snowstorm. Whether you're planning on driving at night or not, take a moment before every winter trip to clean off your headlights. At home, we suggest you have a squeegee or paper towels stored in your garage, so you don't have an excuse not to wipe the film off your headlights, before you take off. When that last remaining wooly mammoth runs out into the middle of the road some night, you'll thank yourself.

17. When driving in the snow, do everything slowly.

Even with good coolant, snow tires, stability control, all-wheel drive, and the bag of Doritos in the trunk, keep in mind that driving in snow, sleet, and ice is very treacherous. And even if you maintain control of your car, not everyone else will. So don't ever get lulled into a false sense of security. Do everything slowly and gently. Remember, in the snow, the tires are always just barely grabbing the road. Accelerate slowly and gently, turn slowly and gently, and brake slowly and gently. To do this, you have to anticipate turns and stops. That means what? Going slowly and leaving plenty of distance between you and other cars. Rapid movements lead to skids and loss of control. Drive as if there were eggs on the bottoms of your feet - step on the gas and the brake pedals so gently that you don't break the eggshell.

If you're nervous about driving in winter, consider spending some time practicing. Go to an empty parking lot and try sending the car into a little skid on purpose. Slam on the brakes, then practice turning into the skid and see what happens - and practice until you're comfortable regaining control of the car. Doing this in a large, empty parking lot (preferably without light poles) allows you the luxury of skidding without ending up flat on your back, looking up into the eyes of seven different EMTs. The more comfortable you are maintaining control and regaining control, the better a winter driver you'll be. Oh, and one more thing. Don't forget your laptop computer with the cellular Internet connection so you can kill time here at Car Talk while you're waiting for the tow truck.

18. If you're thinking about a new car, think about safety features that will help in lousy weather.

If you're looking at buying a new car, consider buying one with features that will help you when road conditions stink, such as anti-lock brakes and vehicle stability control.

Vehicle stability control, a relatively recent safety addition, has been shown to prevent accidents during treacherous or otherwise dangerous driving conditions. It doesn't give you license to drive recklessly in poor conditions, but it will give you an added degree of safety. We recommend it.

Finally, if you really have to drive a lot in the snow, all-wheel drive is a good option. If you just drive in the snow a few days a year, front-wheel drive is fine - and you'll get better fuel economy and save a heap of money on repairs over the years.

To see the full Car Talk Winter Driving Tips feature, and other Car Talk features, drop by the Car Talk web site.