

# Winter Driving

## Safety Tips on Winter Driving from an Automotive Engineer

Featuring: Peter J. Leiss

**W**inter weather has affected much of the country this season, extending commutes, closing roadways, and contributing to countless crashes and fender benders. As an employee at Robson Forensic I have unique access to a variety of people with very specialized expertise, so yesterday morning I sat down with the head of our automotive group, Peter J. Leiss, to discuss strategies on safe winter driving.

Pete had a number of suggestions for improving driving safety in winter conditions. Even if you are not directly affected by the current winter weather, you likely know someone who could benefit from these safety tips. The over-arching message is that if you have the option, stay off the roads altogether. Winter weather adds various potential hazards that are best avoided, but for those of us who must brave the frozen thoroughfares, read on...

**Tire Placement** – Ensure that your tires with the most tread are on the rear wheels. We occasionally get pushback on this topic from “car guys”, but the fact of the matter is that if you lose traction, you are less likely to enter an uncontrollable spin if your best tires are on the rear.

**Tire Inflation** – As the ambient air temperature drops, so does the air pressure in your tires. Check your tire pressure, it is likely that you’ll need to add air.

**Air Conditioning** – Ensure that your A/C unit is charged, when most cars are set to defrost mode, the A/C unit will work to dry the air in the cabin and reduce fogging of the windows.

**Clean the Snow Off Your Car** – It’s important to clean not only your windows, but also your headlights, hood, and roof. This practice will not only improve your visibility, but will also help to prevent snow and ice from your car blowing onto other motorists.

**Turn On Your Headlights** – Not only to improve your visibility, also to make it easier for other drivers to see you.

**Be a Smooth Operator** – Avoid sudden applications of the throttle, brakes, or steering. Sudden applications of these primary vehicle controls can lead to a loss of traction and control.

**Don’t Tailgate** – Tension is already high amongst motorists in foul weather, in lower traction conditions it will take longer to make evasive maneuvers.

**Check Your Gauges** – Snow and ice may build up on the front of your car, blocking air flow to your cooling system, which has the potential to cause your engine to overheat.

**Ride in the Tracks of the Vehicles Ahead of You** – Unless those tracks have turned to ice, riding in the tracks is likely to provide better trac-

tion. Some of the snow and slush in the tracks has been dispersed, allowing your tires to make contact with the road surface. If the tracks have formed compacted ice, you may find better grip on fresh snow.

**You Can Turn or Stop in Snow, but not Both** – In many snowy conditions there is enough traction to turn or stop, but trying to do both at once will often force the vehicle into a slide. If you find yourself sliding towards an obstacle, it may be help to release the brakes and steer around it.

**Reduce Your Speed** – By reducing your speed you can increase the amount of time available for evasive maneuvers.

**Getting Unstuck** – If you do get stuck in the snow, it may be helpful to turn-off your traction control system. In some scenarios, the additional wheel spin will help to dig through the snow, allowing your tires to make contact with the asphalt and gain traction.

**Be safe out there.**

*Pete worked as an automotive engineer with General Motors and Dodge. His expertise includes powertrains, suspensions, structures and safety equipment; this includes ABS, Traction Control, and Electronic Stability Control systems.*

*[pleiss@robsonforensic.com](mailto:pleiss@robsonforensic.com)*