

Winter-like temps can reduce tire pressure

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The polar plunge that has chilled much of the nation does more than bring out ice scrapers and antifreeze. It can trigger vehicles' tire pressure monitoring systems overnight, sending nervous drivers to dealers and service centers.

For example, by noon Tuesday, about 20 customers had visited George Matick Chevrolet in Redford, Mich. because their tire pressure warning icons were illuminated, said service manager Mike Hawkins.

"We explained why this happens this time of year, quickly re-inflated their [tires](#) and sent them on their way," he said.

Here's why a cold snap affects tire pressure and sets off the tire [pressure monitoring](#) system (TPMS) warning lamp:

For every 10-degree-Fahrenheit drop in temperature, tire air pressure decreases about 1 pound per square inch (psi), said David Cowger, global sub-system manager for tires in General Motors' Tire and Wheel Lab. On top of that, tires slowly lose air anyway – the equivalent of between .25 and .5 psi per month – because air passes through rubber.

"So if you last checked your tire pressure a few months ago when it was 70 degrees and now it's 20, a tire with a recommended psi of 35 could be down to 27 or 28 and set off the TPMS warning," said Cowger. "It's very common when the first cold weather arrives."

Unless there are issues such as punctures or damage, the TPMS light will turn off once the tires are properly inflated.

It's important to keep tires inflated to their recommended psi (found on a placard on the driver's side center pillar or door edge), said Cowger. Underinflated tires can wear out prematurely, negatively affect vehicle handling, reduce fuel economy and overheat, leading to blowout.

Tire pressure monitoring systems have been required on new vehicles since 2007. The National Highway Traffic Safety Administration requires the TPMS to display an alert when a tire's pressure drops 25 percent below its recommended psi.

GM, along with technician training experts from ACDelco, recommend these tips for cold-weather tire care:

- If your vehicle is equipped with a tire pressure monitoring system, check individual tire pressure readouts in the driver information center and re-inflate to the tires' recommended psi as necessary
- Check [tire pressure](#) at least monthly with a quality tire gauge, and when the vehicle has been driven less than a mile. Tire inflation increases 2-3 psi when the tires warm up during driving
- When refueling, visually inspect tires for damage and sharp objects in the tread that could work their way into the tire
- Have tires rotated and – if needed – balanced according to the schedule in the owner's manual. If the TPMS isn't one that automatically resets, a technician will do it manually.

Provided by General Motors

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