

Winter tires: Everything you need to know to help you get a grip

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INCLUDES CORRECTION

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Life is expensive for drivers in Canada, what with fuel costs, maintenance, parking charges, car insurance and licence fees. Perhaps that's why some are questioning whether they need to shell out an additional \$1,000 or even \$2,000 for winter tires to better handle the icy, snowy and slushy road conditions that come with winter.

"Are winter tires a scam if you live in a major city?" one Canadian Reddit poster recently asked. "I've only made sure my all seasons are immaculate and have never bothered with winties."

One in four Ontario drivers agree with the author of that post. Three-quarters of Ontario drivers reported using winter tires in 2024, according to the Tire and Rubber Association of Canada (TRAC), which cited a Leger [survey](#) of 1,606 Canadian drivers between Oct. 18 and 21, 2024. A similar proportion of Canadians outside of Quebec (where use is mandatory) report using winter tires.

The top three reasons drivers gave for not using winter tires were: "all-season tires are good enough" (62 per cent), "too expensive" (27 per cent), and "I don't drive much in winter" (23 per cent).

Some drivers might be able to get away with all-season tires, but only if they can stay home when road conditions are at their worst, said Steve Bourassa, Mississauga-based director of products and pricing for Nokian Tyres PLC, the Finnish company that introduced the first snow tire – the "weather tire" – in 1934.

"It all depends on how much you need to be behind the wheel of a car," he said.

Research on the reduction in collisions with winter tires is limited, but a 2011 study by Quebec's Ministry of Transportation suggest they make a difference. In the two years after Quebec mandated the use of winter tires in 2008, the number of people killed or seriously injured decreased to an average of 523 from an average of 822 in the five previous years. That is a 36-per-cent reduction.

The TRAC survey found 79 per cent of drivers with winter tires believed their tires had saved them from being involved in a potentially hazardous driving situation.

But what exactly are winter tires, how do they work and what's with all the confusing tire terminology? Let's take a closer look.

What is a winter tire?

Only tires with the alpine symbol (a three-peaked mountain and snowflake) on the sidewall and studded tires are universally considered winter tires. British Columbia, which requires that winter tires or chains be used on most routes from Oct. 1 to April 30, also accepts all-season mud and snow (M+S) tires.

Winter tires typically have wide tread grooves and sharp-angled tread blocks to bite into the snow. The pattern also includes sipes (bracket-shaped grooves), which add biting edges to improve traction.

"Snow tires" is a term from a bygone era, Bourassa said. Today's winter tires do much more than dig through snow. The tread compounds on winter tires have been improved over the years to increase traction and lateral grip, Bourassa said. Their soft rubber compound stays pliable in freezing temperatures.

Ice tires add even more grip on ice. Nokian states an independent test laboratory must find that the tires perform at least 18 per cent better than a standard reference tire to receive an ice grip designation.

Studded tires, which are embedded with small metal studs that protrude slightly from the tire tread, have the best performance on ice, Bourassa said. "I can't see a time we would ever beat the mechanical grip [of studded tires]," he said.

However, studded tires are banned in Southern Ontario and have timeframe restrictions in many other provinces, such as Manitoba where they can be used only between Oct. 1 and April 30. That's because they can be damaging to paved surfaces and they provide less traction on snow- and ice-free roads, since the studs become the main point of contact with the asphalt.

Prices vary widely, but winter tires from major brands – such as Michelin, Continental and Nokian – can be purchased and mounted at many tire outlets for \$800-\$1,000, depending on the vehicle. Prices at dealerships can run as high as \$2,000 or more. Steel rims, which cost between about \$50 and \$200 each, are extra.

Can't I just leave on my all-seasons?

So-called all-season tires are really three-season tires in most of Canada. "When it gets below 7 degrees [Celsius], get the winter tires on," said Dennis Porter, Edmonton-based instruction supervisor for the Alberta Motor Association (AMA). At that temperature, "all-seasons lose traction."

Research from the Traffic Injury Research Foundation (TIRF), an Ottawa-based non-profit, found that at temperatures just below freezing, stopping distances for vehicles with winter tires were as much as 30 per cent shorter than for vehicles with all-season tires. The study also found that winter tires delivered better traction on ice- or snow-covered road surfaces at -30 C than all-season tires did at 4 C.

Transport Canada recently tested stopping distances of identical Ford Explorer SUVs driving on a snowy, frozen surface. One had all-season tires and the other had winter tires. At a speed of 50 kilometres an hour, it took 55 metres for the SUV with all-seasons to stop. The vehicle with winter tires required 30 metres. Transport Canada did not name the brand used.

The worst conditions occur when temperatures hover just above and below freezing, Bourassa said, as the warmth from cars and repeated stops lead to ice buildup at intersections. That's why he thinks it's a shame that Ontario bans the use of studded tires in the southern part of the province; they can help break up the ice at intersections, he says.

Since Ontario partly banned studded tires in 1972, citing damage to asphalt, tire technology has been refined to minimize road damage, Bourassa said.

Finland, the home of Nokian, allows studded tires on all its roads during winter months.

What about all-weather tires?

The traction of all-weather tires is “almost” as good as winter tires, said Porter. That’s why the AMA uses them year-round on its driver-training vehicles. Yet he recommends drivers opt for winter tires if they can afford them.

In a 2023 test, Consumer Reports found some all-weather tires have some of the same attributes as winter tires and have better traction in cold and snow than all-season tires.

All-weather tires typically have the three-peaked logo, which means they are recognized by provinces as winter tires.

How long do winter tires last?

Winter tires reach “a critical [wear] point” sooner than summer tires, Bourassa said. North American jurisdictions state that any tire with two-32nds of an inch (1.6 millimetres) of tread left is worn out, but the Nordic countries require winter tire replacement when the tread has worn to four millimetres (about five-32nds of an inch).

Winter tire laws

Quebec and British Columbia are the only provinces that require the use of winter tires at certain times or on certain roads. In Quebec, all cars must have winter tires from Dec. 1 to March 15. British Columbia requires winter tires from Oct. 1 to April 30 on most highways (typically in mountain pass areas). All provincial laws, which vary by province, recognize studded tires as winter tires, and Ontario allows them only in the northern half of the province.

The other provinces and territories do not require winter tires, although common sense dictates their use in northern areas like Yukon or Nunavut or any region that gets a lot of ice and snow.

When should I put my winters on?

Waiting until the snow flies can put drivers into a frantic jousting match for appointments at the local tire shop. A late-October snowfall in Calgary, for example, triggered an avalanche of calls to local tire shops from drivers seeking winter tire installations.

“After yesterday, our call volume has gone up substantially,” Alex Earl, zone manager for Kal-Tire in the Calgary area, said the day after the storm. In some of the company’s 15 Calgary outlets, “we’ve been booking out three [to] four weeks.”

Drivers don’t need to wait until the snow flies.

And Bourassa said it’s safe to put winter tires on in September, when temperatures start to cool, as long as you don’t drive aggressively. “Winter tires do not melt off the way consumers think they do,” he said.

Editor’s note: This article was updated with data from the 2024 Leger survey, which was released on Nov. 12.

<https://www.theglobeandmail.com/drive/culture/article-winter-tires-everything-you-need-to-know-to-help-you-get-a-grip/>

I came late to winter tires, but I am converted. I put a set of Nokian winter tires, studded, on my old Silverado 4x4 while in the NWT. The difference was immediately noticeable. (I’m not sure they perform as well as my all-season tires once the weather and road surface warms up.) The extra cost is a set of rims making the changeover quick. A tire shop charged \$17 (with taxes) per tire to make the flip last week; I have tired of fighting with wheel nuts. These tires are not cheap, especially the kind needed with a 4x4 truck, but worth it as I remember sliding around in the winter on “all-seasons” that really are only 3-season. TJB

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When you need extreme grip on icy roads and traction on snow-covered workites, the Nokian Hakkapeliitta LT3 studded winter tire has the structure and durability you need to get the job done. Designed for demanding winter use, the Hakk LT3

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