

What do winter tires really do?

A University of Michigan 2016 study entitled [Ten Surprising Findings About Winter Tires: It Is Not Just About Snow](#) helped break down what winter tires really do. The ten findings?

1. The main benefit of winter tires is improved tire adhesion, braking and cornering performance – not acceleration, though it helps there, too.
2. Winter tires provide improved traction on roads below 7°C (45°F) even when snow and ice are not present.
3. Stopping distances for winter tires on packed snow are approximately 35 per cent shorter than for all-season tires; and 50 per cent shorter than for summer tires.
4. Winter tire improvements in stopping distance also extend to improvements in cornering capability.
5. Tires designated as “mud” and “snow” tires do not necessarily perform well on packed snow and ice. Tires without the 3PMSF symbol were found to require 40 per cent longer stopping distances than similar tires with the symbol.
6. Tires with aggressive treads will not necessarily perform well in slippery winter conditions unless they have the 3PMSF symbol.
7. In Canada, during the winter period from December to February, there is a reported 49-per-cent increase in insurance claims. Much of this elevated risk is attributable to slippery road conditions in winter. Winter tires reduce crash frequency during winter months.
8. A two-wheel-drive vehicle with winter tires will outperform a four-wheel-drive vehicle with all-season tires in braking and cornering. The perception that four-wheel-drive vehicles do not require winter tires in cold climates is false.
9. Crash-avoidance technologies [such as electronic stability control](#) depend on tire adhesion to function. Winter tires are becoming increasingly important rather than less important as vehicle technology matures.
10. It is imperative winter tires be fitted to all four wheels and not just the driven wheels of a two-wheel-drive vehicle.