

Wheels: Scott of Dayton asks why his eyes burn whenever he drives his truck. He also smells the exhaust a lot more than with other vehicles he has driven. Do you have any ideas?

Halderman: Yes. Whenever you smell exhaust, it is usually due to unburned gasoline (hydrocarbons). The major reason for excessive unburned gasoline being emitted from the tailpipe is a fault with the ignition system. Items that Scott or his technician should check include:

- spark plugs
- spark plug wires
- distributor cap and rotor (if equipped)
- ignition coil for proper output

If the exhaust burns your eyes (as in Scott's case), excessive oxides of nitrogen (NO_x) exhaust emissions could be the cause. The oxides of nitrogen combine with the water in your eyes to form a mild nitric acid solution. This is why your eyes burn.

Wheels: What can be wrong with Scott's truck if he also smells the exhaust?

Halderman: A vacuum or intake manifold air leak is a common cause that would create both excessive NO_x and unburned gas. The resulting mixture is too lean to burn so the unburned gasoline is simply pushed out of the cylinder by the piston on the exhaust stroke. The lean air/fuel mixture also causes the engine to run hotter than normal and this can cause excessive NO_x emissions. Therefore, the most likely cause of Scott's problem is a vacuum leak.

Wheels: Are there other indications that readers may be able to notice to detect a problem before it is noticed?

Halderman: If you get dizzy or have a headache when your engine is running, this can be a sign of excessive deadly carbon monoxide (CO) exhaust emissions. Carbon monoxide can kill you so if you feel yourself getting dizzy or have a headache, get into the fresh air as soon as possible. Open the windows of the vehicle and have the exhaust system carefully inspected for leaks. The engine should also be checked for an over rich condition causing the engine to burn an excessive amount of gasoline. Excessive CO emissions can also cause the vehicle to fail the State of Ohio E-Check vehicle exhaust emissions test.

