What Are The Signs That You'll Need New Tires?

Modern vehicles, with all of their elite technical refinements, still need four healthy hunks of round rubber on the wheels to make use of that fuel injected, computer controlled engine under the hood. Whether it's a slow leak or a dangerous freeway speed blowout, it's never convenient when your tires decide to flatten your day.

Fortunately, there are simple ways to monitor your tires and identify potential failure before it ruins your day or, even worse, harms you, your loved ones or your vehicle.

Obviously, tires are the only parts of the car that physically touch the ground. Therefore, they are the essential factors affecting your vehicle's handling and braking. As an educated driver, you need to get acquainted with your tires and know their appearance, make, model number and proper inflation level (usually in pounds per square inch, or PSI).

You should visually inspect your tires on a regular basis. If you note any early warning signs, immediately ask a professional to inspect them. He or she will be able to check and correct items that cause the warning. In some situations, you may need to replace your tires.

What are you looking for during your visual inspection?
•***Uneven tread wear.*** This can be caused by improper inflation, misaligned wheels, damaged tires or problems with suspension parts.
•***Cracking or cuts in the sidewalls.***
•***Worn tread.*** Most modern tires have tread-wear indicator bars running across the tread. These signal the minimum allowable tread depth of 1/16-inch. When the tread wears down to these bars, it's time for new tires. In addition, inexpensive tread-wear gauges are available at auto-parts and tire stores.
•***Use the penny test!*** You can use a Lincoln-head penny as a tread-wear indicator. Insert the penny into a tire groove with Lincoln's head toward the tire. If you can see the top of Abe's head, the tread is too worn, and you need new tires.
•***Bulges or blisters.*** If you see a bulge or blister on the sidewall, replace the tire at once. These signal potential weak spots that could lead to tire failure.
•***Excessive vibration.*** Tire vibration may be a sign a wheel is misaligned, unbalanced or bent. It could also signify internal tire damage. Have the vehicle serviced by a professional at once.

Surveys show that as many as half the cars on the road may be riding on one or more underinflated tires. Part of the problem is that tires lose air through the rubber and at interfaces with the wheel and valve. These leaks can be so slow and subtle that many people don't realize it's happening. Seasonal temperature changes may also cause the tire pressure to drop as the tire inflates or deflates with warming and cooling weather.

Because the sidewall flexes more at lower tire pressures, underinflation compromises the driving control that a tire provides. Even a small pressure loss can affect a car's handling, making it harder to control. Such a loss can also make the ride softer and the car drift. Underinflated tires lower a vehicle's fuel economy, which will cost you money at the gas pump.

A sidewall that flexes too much can also cause heat to build up excessively, which can shorten a tire's life and possibly lead to a dangerous tread separation or blowout. If you see stretch marks or any other signs of strain around your sidewall, consult a professional.

To maintain proper inflation:
•Don't eyeball it! Don't judge the pressure by eyeballing a tire. Modern radial tires bulge slightly, making them look a little underinflated even when they're not.
•Check the tire gauge. At least once a month, use a tire gauge to check the pressure in all four tires and the spare. A tire-pressure gauge is available for as little as $2 to $5 at auto-parts stores.
•The car manufacturer knows best! Set the tires to the automaker's recommended tire pressure. This is printed on a placard in the car, either on a doorjamb, the fuel-filler door, or on the inside of the glove-compartment lid. It's also usually printed on the sidewall of the tire. Don't go by the "maximum inflation pressure" imprinted on the tire. If your car has a limited-service spare, also check that it's inflated to the pressure specified on the placard—usually 30 to 60 psi.
•Chill! Measure the pressure with the tires cold, before they've been driven more than a mile or two. As the vehicle is driven, the tires heat up and the pressure rises, which makes it more difficult to set them to the correct cold-tire pressure.

By following these simple steps, you'll not only save money on new tires before you need to spend it. You'll also ensure safe driving and protect you and your passengers.