

Easy Ways to Get the Most **MILES PER GALLON**



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When you're spending as much money on fueling your vehicle as you are on the actual car payment, saying that gas prices are high is an understatement. Today, the average family lists automobile fuel as one of their most expensive monthly bills. We've all got to get to and from work, take the kids to school, and travel to see family, but the expense of operating a vehicle is quickly becoming a significant financial burden.

For cost-conscious green drivers, searching for fuel efficient tips is an obvious way to bring down the cost and the environmental consequences of operating your car. This collection of fuel efficiency tricks covers the entire spectrum, from simple driving strategies to major mechanical overhauls. You don't have to be an automotive genius to take control of your car's MPG rating. Incorporate a few of these ideas into your routine to boost your MPG rating and make your car a little greener.

Driving Strategies



The simplest way to boost your vehicle's fuel efficiency is to change the way you drive. Being a bit more conscious of how the operation of your car affects its MPG rating is a basic way to get a few more miles out of your tank. Here are a few simple strategies to max out your MPGs without employing major mechanical skills:

- Keep track of your vehicle's MPG gauge. On models manufactured in the past five years or so, there's usually a dashboard gauge that will show you your real time MPG rating and the average since your last fill-up. Sometimes this option appears in the same location as your odometer. Check your owner's manual for information about where to locate this function.
- If you have an older vehicle, you have two options for calculating your vehicle's MPG rating. First, you can do it the old fashioned way by finding your average fuel efficiency for an entire tank of gas. Begin by refilling your tank when it is almost completely empty. Note the number of gallons you purchased on the gas pump's meter. Set your odometer before you drive away from the pump. When your vehicle is empty again, note how many miles you drove on that amount of gasoline. Divide the number of miles you drove by the number of gallons of gas you originally purchased to calculate your average MPG rating. Alternately, you could purchase and install a device like [Ecometer](#) that connects to almost any vehicle for continual MPG readings.

- After you've determined how to get a MPG reading for your vehicle, notice how your driving habits affect your car's fuel efficiency. Small changes in the way you operate your car can boost your MPG rating and save a little money on fuel costs.
- Obey the speed limit at all times! Driving at reasonable speeds will improve your vehicle's fuel efficiency. Any speed above fifty-five miles per hour decreases fuel economy.
- Get rid of the junk. An extra one hundred pounds of cargo can reduce your fuel economy by two percent. That box of thrift store donations and set of golf clubs in your trunk could be costing you money each time you hit the road. But don't completely strip down your ride. Your tire jack, spare tire, and jumper cables provide safety that's definitely worth a few extra pennies per mile.
- Keep your windows and sunroof closed. While this fuel efficiency tip is sometimes debated, you're more than likely better off using your air conditioner on a low setting in extreme heat than driving at high speeds with your windows down.
- UPS's famous [right-turn policy](#) helps the company save around three million gallons of gas per year. Take a cue from this company's fuel efficient driving strategy and incorporate as many right turns into your route as possible to cut down on time and fuel spent idling at intersections.
- If your vehicle is going to be stationary for longer than one minute, turn off the ignition. You'll use less fuel to crank back up again than you will by running your vehicle while motionless.
- Use cruise control. Not only is it a safe way to keep a constant speed on highways, cruise control reduces sudden accelerations that suck gas.
- If available, use an overdrive gear. This option reduces your engine's RPMs, or revolutions per minute, and maintains a high speed while using less fuel.
- If you drive a car with a manual transmission, don't rev your engine before you change gears. Shift to the next gear when your RPMs reach about 2500. After reaching forty miles per hour, you should be in top gear for maximum fuel economy.
- Newer cars with automatic transmissions often have a "manumatic" function that allows drivers to control when their vehicle changes gear. Use this function to have greater control over your vehicle's fuel efficiency without having to fumble with a clutch.
- Consider when you refuel your vehicle. The more gasoline in your tank, the more weight your vehicle is hauling. But, if you routinely run your vehicle with less than a quarter of a tank of gas, you risk sucking in sediments and rust that could cause your engine to run less efficiently.

- Purchase your fuel in the early morning or late in the evening when temperatures are cooler. Although most gas stations' tanks are buried, the small temperature drop will allow you to get a drop or two more for your money.

DIY Basic Maintenance



If you're a little handy and have a few hours to spare on the weekend, these DIY car maintenance projects will help lower your fuel costs and keep your vehicle in tip top shape.

- Regular oil changes keep your engine in optimal condition which results in better fuel economy. Many drivers change their own oil with just a few inexpensive tools. Consult your vehicle's owner's manual before you attempt a do-it-yourself oil change. You'll need a filter wrench, oil pan or bucket, adjustable wrench, rags, and appropriate oil and filter. It's also helpful to have ramps on which to drive your vehicle to increase the amount of space you have to work in underneath your car. Always use the type of oil suggested by your vehicle's manufacturer. Search for online tutorials or videos for step-by-step instructions on how to change your oil at home.
- When shopping for your vehicle's recommended engine oil, choose a brand with the API "Energy Conserving" or "Resource Conserving" label. It is usually found on the back of the bottle of oil and appears as a small segmented circle. This indicates that the oil has been proven to reduce friction which leads to fuel savings for drivers.
- Use synthetic oil. It has a more uniform viscosity at a wider range of temperatures and will keep your engine properly lubricated more effectively than standard engine oil.
- Ensure that your tires are inflated to the maximum suggested PSI. Again, check your owner's manual for the manufacturer's recommended pressure rating. This information is also typically located on the driver's side door frame. Always consider the range listed on your vehicle, not on the tires. For drivers who are willing to sacrifice a little comfort for a few MPGs, tires inflated to the max PSI can boost fuel efficiency by around three percent. Never inflate your tire above the recommended rating. This could cause you to lose control of your vehicle or the tires to burst.

- Have your tires rotated and balanced every other time you change your oil. This isn't a DIY project, but it is an important part of routine maintenance that leads to better handling, longer tire life, and possibly better fuel efficiency.
- Replace your old tires for more fuel efficient ones. As gas prices climb and more people are interesting in getting the max fuel efficiency from their vehicles, tire companies have begun to design tires that will boost your MPG rating. [Continental ProContact](#) and [Bridgestone Ecopia](#) are popular eco-friendly tire options, but almost every major tire manufacturer has a couple of designs that boost fuel efficiency. Look for the phrase "low rolling resistant" to denote tires that increase fuel efficiency.
- Contrary to what many drivers assume, regularly replacing your vehicle's air filter doesn't necessarily contribute to better fuel economy. The U. S. Department of Energy released a [study](#) in 2009 concluding that air filter quality does not impact fuel economy on newer, computer-controlled, fuel injection engines. However, if your vehicle was built before the mid-nineteen eighties and has a carbureted engine, replacing your air filter can improve your MPG rating by up to six percent. If your air filter was excessively clogged, you could notice an even more significant improvement. Nevertheless, replace your filter often as it is an important part of routine engine maintenance.

Advanced MPG Tuning Options



Below are several tuning options you can complete to boost your vehicle's efficiency. These projects are a little more time-consuming and may require more than basic knowledge of auto-mechanics, but the time and effort will be well worth the money you save by lowering the amount of gasoline required to operate your vehicle. Consult your owner's manual before completing any of these fuel-saving projects to ensure that you do not damage your vehicle.

- Fouled or dirty spark plugs can cause your vehicle to use more fuel. If your engine is sputtering and sucking gas, your spark plugs might be to blame. You can either replace the old plugs or clean them to make your engine run a little more efficiently. To clean spark plugs, first remove them from the engine with a socket wrench. You'll need a specific spark plug socket for this project. Clean plugs with a dry rag and a quick-drying liquid like rubbing alcohol or brake cleaner. Use an air compressor or canned pressurized air to dry the plug and blow away any remaining residue. Clean the spark plug's threads with a small wire brush and rag. Also clean the hole with a dry rag if it is excessively dirty. Reinstall the cleaned spark plugs for a boost in your car's MPG rating. If purchasing new spark plugs, your local auto supply center will be able to provide you with the correct type based on your vehicle's make, model, and year.
- When fuel injectors get clogged, they release fuel in a jet instead of an easily combustible spray. If you purchase high-quality fuel, your fuel injectors will be less likely to get clogged. Some privately owned or smaller chain gas stations sell low-quality fuel without the additives that prevent clogs. If your engine is sputtering or using more fuel than normal, you might consider cleaning your fuel injectors. While cleaning your vehicle's fuel injectors isn't what you would call a simple do-it-yourself project, it will boost your vehicle's efficiency and performance. If you want to skip a trip to the mechanic, you can purchase a DIY fuel injector cleaning kit from your local auto supply store. [3M](#) makes a popular kit, as does [OTC](#). You'll also need a can of fuel injector cleaner. Make sure that you following the instructions for your specific fuel injector cleaning kit. The cost of this project is high, roughly \$150.00 to \$200.00, but the improvements to your fuel efficiency and performance will be well worth it.
- Loose air hoses can cause high idle and lower your MPG rating by disrupting the fuel to air ratio require by your engine for maximum efficiency. Check under the hood for any loose or disconnected hoses. Tighten all hose clamps by hand, then with a screwdriver to ensure each seal is airtight.
- Advanced engine timing will help improve fuel economy at low RPMs. While this is a tricky mechanical job, it's definitely something to look into if you have the skills to do engine work.
- Invest in a [block heater](#). This device can be set to turn on a couple of hours before your morning commute to heat-up your engine in preparation for ignition and driving. Pre-heating your engine with a block heater help your engine use less fuel when the outside temperature is low. If you live in an area with notoriously long and cold winters, a block heater will be well worth the cost.
- Remove your alternator for up to a ten percent improvement in fuel efficiency. Just beware that you'll need another form of power like an extra-deep battery, the cost of which might offset your fuel savings.

- Disconnect your power steering. Your vehicle won't have to use fuel to power the hydraulic system that makes turning your wheels easy. However, you'll notice poorer handling and difficulty turning immediately.
- Lubricate your wheel bearings with synthetic oil that reduces friction while increasing the life of your bearings. This is a tuning project that most drivers can do themselves. Your owner's manual should have information about how to lubricate the wheel bearings on your particular car.

Fuel Efficient Modifications



If you're ready to take your vehicle to the next level of fuel efficiency, here are some unusual modifications you can make to boost your MPG rating. Many of these projects improve your car's aerodynamics, a huge factor in fuel economy. Unless you're a trained mechanic, you'll probably need some assistance with these fuel-saving projects.

- If you can't purchase a new car but have some money to invest in improving your fuel economy, consider purchasing a smaller engine for your vehicle. Swapping a V6 for a four cylinder engine will make a tremendous improvement to your fuel expense. Check with salvage yards or your local mechanic for a used engine that will fit your vehicle. You might even be able to work out a trade so that your only financial investment is the cost of labor.
- If a new engine isn't an option, you might opt for a new transmission. A mechanic can transform an automatic vehicle into a "stick shift" and save you a few miles per gallon. This is another costly modification but is something to consider if you plan to drive the car for several more years.

- Remove any performance modifications on sports cars or high-performance vehicles. Anything that was added to your car to give it more horse power or torque is probably going to make your MPG rating drop.
- Remove bulky accessories. Luggage racks, bicycle racks, brush guards, body kits, tool boxes, and other large, heavy accessories add weight to your vehicle and disrupt your car's aerodynamics. If you're striving to increase your fuel economy, get your car back to factory condition.
- Remove mud-flaps, particularly on larger trucks and SUVs. They disrupt your vehicle's aerodynamics and aren't really useful unless you take your vehicle off road.
- Consider removing your vehicle's spoiler. In most cases, they are only cosmetic and don't contribute to better performance or increased fuel economy. You'll probably do more for your MPG rating by losing the extra weight.
- If you really want to strip down your vehicle to the bare necessities to increase its fuel efficiency, check with your local DMV to see if your state or area requires side mirrors. Most only require a driver's side mirror. Ditching the passenger side mirror will contribute to a more streamlined vehicle. Just remember that your rear-view mirror will have to compensate for the loss of visibility.
- Replace your factory hubcaps with "moon covers," or solid hubcaps that reduce drag. Many hybrids have this type of hubcap because they have been shown to improve fuel efficiency by several percent. Some drivers get creative and make DIY moon covers out of pizza pans or packing tape.
- If your vehicle has bucket-style headlights or pop-up headlights (usually older models), use Plexiglas or plastic to create a clear cover to fit over the area and reduce drag.
- Consider installing a smooth belly-plate on the underside of your vehicle. Many hybrid vehicles also use this technique to boost fuel economy.
- Rear wheel skirts may look a little funny, but they are easy to install and have a dramatic effect on your vehicle's MPG rating.
- The odd shape of the quintessential hybrid, the Toyota Prius, isn't accidental. It's called a Kammback. Many drivers have modified their hatchbacks, wagons, and mini-vans to resemble this shape and gained several miles per gallon. Tapering off a blunt back-end greatly reduces drag and improves aerodynamics.
- Install a front air dam on the front bumper of your truck or SUV to improve the aerodynamics of taller vehicles and boost efficiency.

- Tonneau covers are flat caps that enclose the bed of a pick-up truck. Unlike traditional camper shells, this option makes a huge difference in fuel economy for drivers of inefficient large trucks. Some tonneau designs, called aeroshells, incorporate the Kammback shape. These begin at the top of the cab and extending down to the top of the tailgate for maximum improvement in fuel economy.
- Resist the temptation to blast that a/c. Remove the entire system and reduce your vehicle's weight by fifty pounds. Cost-conscious drivers have developed all types of methods of cooling their bodies in hot cars without air conditioning or rolling down the windows. Grab a bottle of ice water and a damp towel to save some money at the pump.

Conclusion



Reducing the cost of your fuel bill is an important component of making your household more economical and environmentally friendly. Spending a fortune on gas to power your family's vehicle isn't a requirement. There are plenty of things you can do to make the vehicles you already own use less fuel to get you where you need to go. Being more conscious of how you operate your vehicle and keeping up with routine maintenance are two things that any driver can do to improve their MPG average. If you're serious about tuning your car for maximum miles per gallon, there are plenty of projects and modifications that are guaranteed to boost your vehicle's fuel efficiency. With a little extra effort, you'll have a little more time between your next trip to the pump.