COOPERATIVE EXTENSION
Washington State University
ENERGY PROGRAM

Easy Ways to Save Gasoline

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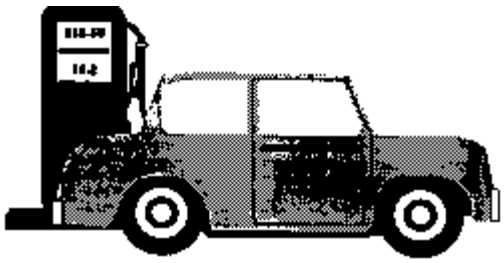
EB1843e

Gasoline is a valuable resource to everyone in Washington. This factsheet focuses on three effective ways to save gas: organizing your driving to reduce miles traveled, driving and maintaining your car to maximize efficiency, and using alternative forms of transportation.

Various tips and information are provided to help you take advantage of these methods. You may be practicing some already because they make good sense --- and save time and money. Others may be new to you. if you choose to try something new, start small. Pick an area where you can make changes most easily. That way, you'll continue doing them. (Giving up your car altogether might save a lot of fuel, but is it something you can maintain over time? Using alternatives to get to work a couple of days a week might be more manageable.) When these gas-saving activities become habits, add new ones and watch your gasoline use drop.

Organize Your Driving

When trying to save gas, most people think of making changes in their work commute. Start by examining the number of trips you take. Changing you daily commute routine can make a big difference. But changing the way you use your car to conduct domestic activities (shopping, errands, meetings, etc.) can make a big difference too. Here are some suggestions for both.



Getting to Work

- Can you avoid rush hour? If you can, commute time is shortened and you can drive at more efficient speeds.
- Can you work a compressed work week -- e.g. four 10-hour days?
- Can you work at home occasionally?
- Can you take the bus to work?
- Can you bike or walk to work every so often?
- Can you join a carpool, vanpool, or rideshare program?

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Making the switch from commuting alone to more efficient alternatives requires preparation. You may be on a tighter schedule -- leaving the house on time and leaving work on time. Plan your schedule and do a practice run. inform your boss of your plans. If you must stay late at work (and miss your carpool), can you get an emergency ride home?

Domestic Driving

- Make a list of shopping trips and appointments. Plan to try and plan a week at a time
- Combine trips. You'll use less gas and save time.
- Is there a parent carpool that you can join? Sharing responsibility with other parents for getting children to events saves gas and gives you valuable free time.
- Try to shop close to home. See if there are businesses that you could walk to or bike to.
- Find a location where you can park, and walk to do your banking, shopping, and other chores. Comparison shop by phone rather than by car.
- Schedule trips during non-rush hour times to avoid stop-and-go driving. This kind of driving wastes gas and causes pollution.
- Challenge yourself to drive fewer miles this year than last.

Watch your Gas Use Drop!

Before making changes to your driving and maintenance habits, figure your car's present gas mileage efficiency. Use this chart to record the odometer reading and the number of gallons purchased at each fill up. Do this several times. Then do the math.

- First, subtract the first odometer reading from the last odometer reading to get the total miles traveled.
- Next, add the all of the gallons recorded except for the first figure. This gives you the total number of gallons used.
- Finally, divide the total miles traveled by the gallons used to determine your car's average miles per gallon (mpg).
- Now that you know your car's mpg, notice the improvement as you change your driving and maintenance habits. You can also keep track of total gallons of gas used each month.

Mileage Record

Date	Gallons	Odometer Reading	Miles Traveled	MPG

Drive Smart, Maintain Your Car

The way you drive affects the gas you use. In addition, regular

maintenance keeps your car running efficiently. You could save as much as a tank of gas a month. Other benefits of a well maintained car are improved safety, less pollution, and longer life. Here are some ways to save gas and prolong the life of your car. (You can record your progress using the form provided; see "Watch Your Gas Use drop!")

Drive to Save Gas

- Drive smoothly. Speeding up and braking reduces mileage significantly.
- Minimize idling time. When you car is idling it gets 0 mpg..
- Avoid jack rabbit starts. Rapid acceleration can reduce fuel efficiency by 2 mpg in city traffic.
- Minimize starting the car in cold weather. Most mechanical engine wear occurs during the first 10 seconds of a cold start.
- Try to limit air conditioning use in slow traffic conditions and on steep hills.
- Remove unneeded weight from your car. You lose 1-2% on mileage for every 100 pounds added to your car.

As the speed of your car increases beyond 55 miles per hour (mph), gas mileage efficiency decreases. Best gas mileage is between 35-55mph. If you drive 55mph instead of 70mph, you can travel five miles more on the same gallon of gas.

UNDERINFLATION

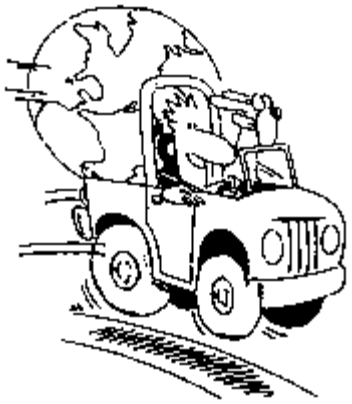
OVERINFLATION

Don't Let Your Car Become a Gas-Eater

- Inflate tires to the pressure recommended on the tire wall. Tires with insufficient pressure create drag, hurting mileage as much as three to four miles per gallon. Check pressure monthly.
- Use a multi-grade oil to reduce engine wear during cold starts.
- Check the air filter twice a year. a clogged filter reduces gas mileage.
- Keep the car tuned. Every 10,000 miles is recommended for most cars. Check your owners manual for specific recommendations.

Before You Drive Consider This

Half of all trips are less than five miles and many of these are made on an impulse. Yet, short car trips get worse gas mileage and create more pollution than smooth, steady driving. The best way to save gas, clean the air, and prolong your car's life is to avoid unnecessary driving, especially for short trips.



Cutting Down on Car Trips Doesn't Just Save Gas!

It reduces pollution: In Washington, motor vehicles account for 43% of our air pollution. (This is more than the pollution caused by industry, wood stoves, and outdoor burning.) Overall, car emissions are responsible for 45% of the nitrogen oxide and 33% of the hydrocarbons that produce smog, acid rain, and the ozone problem.

It reduces dependence on foreign oil: Of approximately 8.5 million barrels of imported oil used daily in the U.S., 24%, or 2 million barrels, are used by passenger cars.

It reduces the likelihood of global warming: Car emissions contribute 75% of the carbon dioxide in the atmosphere, the pollutant that promotes global warming via the greenhouse effect.

It reduces health care costs: According to the American Lung association, air pollution costs the nation's taxpayers about $40 billion annually in health care

It reduces agricultural damage: Crop losses due to ozone damage are estimated to cost between $1.9 and $4.5 billion a year.

When a Little Becomes a Lot

Sometimes saving a little doesn't seem worth it. Here are some facts to show that individual actions do make a difference

- If all tires in the United States were properly inflated, in just three days we could save an amount of oil equal to what was spilled in Prince William Sound.
- Increasing the occupancy of automobiles during rush hour from one to two persons would save 40 million gallons of gas a day. (Or over 15% of U.S. gasoline consumption.)
- Every person who switches from driving alone to using mass transit saves 200 gallons of gas per year.
- If only 10% of those driving alone now were to switch to mass transit, over 300,000 barrels of oil would be saved each day in the U.S.
- In one year, a single vanpool can remove 14 cars from the road, save

8,000 gallons of gasoline, reduce air pollution by 5.4 tons, and eliminate more than 150,000 vehicle miles.

- Each year more than 280,000 Americans are seriously injured in motor-vehicle accidents; 45,000 people die. The risk of being killed or seriously injured while riding public transit is almost 800 times less.

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