



CarWise

Advice to reduce the cost of
your motoring



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Are YOU wasting money?

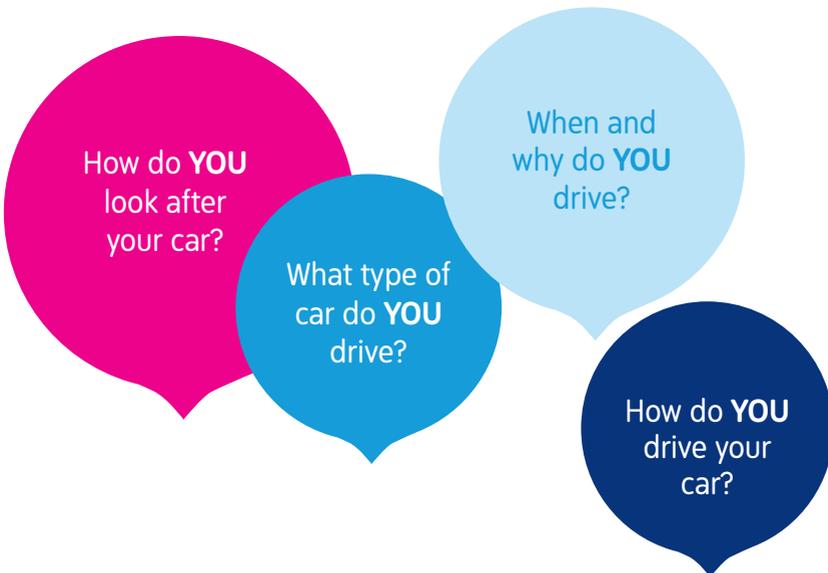
Are your motoring costs going up?

A car is expensive to run, but there are lots of easy ways that you can cut the costs, no matter what type of vehicle you drive.

The average driver spends around £2,000 a year on fuel. Following the simple tips in this booklet could save you money.

And as you save money, through following these tips you could also reduce your vehicle emissions and make local roads safer and less congested.

The most important factor in how much your car costs is YOU!



Cut your fuel costs

How money is wasted	Fuel consumption penalty	What it could cost you extra each year*	What you can do to cut your fuel costs
Typical driving style	15%	£195	Follow the ten 'Smarter Driving' tips in this leaflet.
Very aggressive or fast driving	40% or more	£520	Take it easy and slow down. It's safer and less stressful.
Roof bars (nothing on them)	Up to 2%	Up to £25	Remove roof bars when you're not using them.
Loaded roof rack or bike rack	Up to 30%	Up to £390	Use an aerodynamic roof box if you can (remove when not in use) or consider a rear mounted bike rack. Better still, put your bikes in the car if they'll fit.
Under-inflated tyres	3%	£40	Keep your tyres properly inflated. Check your tyres at least once a month (when they are cold).
Air conditioning	Up to 8%	Up to £105	Use air conditioning as little as possible – it can increase fuel consumption by up to 20%. Open the windows instead at slower speeds. Use the air vents at high speeds.
Extra weight	Up to 2%	Up to £35	Take everything out of your car that doesn't need to be there, especially any heavy items.
Poorly maintained car	Around 20%	£260	Service your car regularly. Many faults can be fixed by a simple engine tune. Even just replacing a clogged air filter can increase your mileage per litre by 10 per cent.

* Based on an average sized car driven 9,000 miles per year + more if high average speed.

Give some of these tips a try

You will save money and be a safer driver as well as helping to reduce your impact on the environment.

1. Shift up a gear as soon as possible.

Drive smoothly and economically by avoiding high engine revs. For petrol or Liquefied Petroleum Gas (LPG) cars, change up a gear before 2,500 RPM, for diesel cars before 2,000 RPM. Press the accelerator gently to drive away and change to a higher gear as soon as you can. Be prepared to skip gears to suit your speed and the terrain.

2. Avoid short journeys.

A cold engine uses twice as much fuel and catalytic converters can take five miles to become effective.

3. Anticipate traffic flow.

Look ahead and keep sufficient distance from the vehicle in front to avoid sudden braking. Don't approach traffic lights at speed. If it is clear that you will have to stop, slow down gently and allow the vehicle to coast if possible.

4. Drive smoothly.

Abrupt starts and stops waste fuel. Accelerate smoothly and brake gently – heavy braking and pulling away too

fast uses 60% more fuel. When you have to slow down or stop, decelerate smoothly by releasing the accelerator in plenty of time.

5. Check your tyre pressures regularly.

Under - inflated tyres are dangerous and can increase fuel consumption by up to 4%.

6. Don't over-rev the engine.

When starting your vehicle, you don't need to press the accelerator hard. When stuck in traffic on a slope, don't balance on the clutch, as this wastes fuel. Use the handbrake instead.

7. Don't sit and wait for the car to warm up.

Drive off as soon as possible after starting the engine. A car warms up faster when it is moving.

8. Switch off the engine when you're stuck in a traffic jam, waiting at slow lights or parked at the side of the road.

Sitting with the engine running in traffic burns fuel and wastes money. But only switch off when it is safe to do so and don't coast with the engine switched off – most cars need the engine running for the brakes to work properly.

9. Slow down.

Driving at higher speeds significantly increases fuel consumption and pollution, and increases your risk of having a serious accident. Driving at 85mph rather than 70mph uses 25% more fuel. You often gain little time when overtaking – but use up lots of fuel in doing so.

10. Use cruise control where possible.

If your car has it, use cruise control as this reduces fuel consumption.

Buying a car?

The car you drive makes a big difference to your costs

When buying a car you should think about:

Your lifestyle

What size and type of vehicle do you really need? Consider the distances you will typically be driving, numbers of passengers/luggage you will carry etc. A smaller, more fuel efficient model can save money on fuel bills, tax and insurance – and reduce emissions. Try to buy a vehicle with a 1.4 litre engine or less. You may decide you need a big car because you have relatives that live over 400 miles away. If you only visit them twice a year however, and most of your driving is done in a 50-mile radius a big car may be inefficient. By buying a smaller car for the majority of driving and renting a bigger car for the long trips you will save money.

Fuel economy

The fuel economy of similar sized cars using the same type of fuel can vary by as much as 45%. Websites such as carfueldata.direct.gov.uk give fuel consumption figures for new cars.

Or look in your newsagent for Parkers Guides or similar, that provide fuel and insurance information for new and second-hand cars.

The age of the car

Most cars older than J Reg do not have catalytic converters and can pollute more than 10 times as much as a newer car. Many, but not all, newer cars have better fuel consumption.

If you're buying a new car look for the Efficiency Label like the ones also used for electrical appliances

Use it to help you buy a more efficient car – if you can't see the label then ask the car dealer.

Buying an environmentally friendly vehicle

If the time has come to get a new car, you could consider a more environmentally friendly option.

A list of electric vehicles can be found on:

plugincars.com/cars

nextgreencar.com/electric-cars/available-models

For more information on low emission vehicle, visit carfueldata.direct.gov.uk

Running a car

New fuel technologies

There is a wide choice of fuel types for new cars today which are much more efficient and environmentally friendly than traditional petrol or diesel cars. Most conventional petrol engines can be converted to run on bi-fuel (LPG and Petrol). There is also a growing number of low emission electric and hybrid vehicles on the market.

Liquified Petroleum Gas (LPG)

LPG is the most commonly available alternative fuel at the moment. LPG vehicle users can save around 30% on fuel costs compared with petrol, and over 10% compared with the equivalent diesel. The cost of an average car with a 1.4 to 2 litre size engine can be seen below:

Fuel Type	MPG	Fuel Price	Cost per 1000 miles
LPG	29.6 miles	64.8p per litre £3.73 per gallon	£99.50
Diesel	47.2 miles	£1.22 per litre £5.55 per gallon	£117.70
Petrol	37 miles	£1.16 per litre £5.26 per gallon	£135.79
Electric	80 - 100 miles per charge	3p per mile	£30

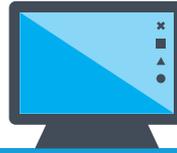
Based on current fuel prices from AA for July 2016.

For further information on LPG fuel or for a full list of LPG refuelling sites in the UK please visit drivelpg.co.uk

For a full list of electric charging points in the UK, please visit zap-map.com/live

Electric vehicles

Electric cars are propelled by electric motors and get their power from a battery, which is recharged from an external source. Electric cars produce zero tail pipe emissions, thus reducing their impact on the environment. Electric cars and vans are currently exempt from Vehicle Excise Duty (car tax). They are extremely quiet vehicles and cheap to run, as low as 3p per mile (depending on tariff).



For more information on incentives and electric vehicle charging infrastructure, please see [gov.uk/government/organisations/office-for-low-emission-vehicles](https://www.gov.uk/government/organisations/office-for-low-emission-vehicles)

For more information please see [ev-network.org.uk](https://www.ev-network.org.uk)

Hybrid cars

Hybrids usually use electric motors running off batteries alongside an internal combustion engine using petrol or diesel fuel. The use of the petrol engine eliminates the need to recharge the vehicle from an external source as the petrol or diesel engine recharges the battery at times when its energy would otherwise be wasted. Hybrid cars are approximately 50% more fuel efficient than a conventional vehicle of the same type, giving hybrids reduced emissions and cheaper running costs.



Driving less & Car Sharing

Cut down the number of trips you make

One of the best ways of saving money is to use your car less.

Before you use your car ask yourself:

Do I really need to make this journey?

Could I combine several trips rather than make lots of short 'trips'?

Short journeys (less than 2 miles when the engine is cold) use more fuel and pollute up to 60% more per mile than when the engine is hot. Several short 'cold start' trips can use twice as much fuel as a single, longer trip that covers the same distance.

**Do I really
need to make
this journey?**

**Could I car
share?**

**Could I
combine
several trips?**

Could I car share?

Sharing a trip with a friend, neighbour or colleague can be a good way of helping you cut your travel costs.

Join a car sharing scheme:

If you don't know anyone who is making a similar journey to yours, you could find a car-share partner through one of the following websites. They are safe, secure and free to join! You could also check if your workplace already has a car share scheme in place.

Car sharing 5 days per week with 1 person not only reduces traffic on the roads by 20%, but will save you £521 annually,

liftshare.com/uk

nationalcarshare.co.uk

carshare.liftshare.com

faxi.co.uk

20% of households in your area have more than one car. One of the best ways of cutting car use and cutting your costs is to downsize. Could you make small changes so you can reduce the number of cars you need? Remember, a new bottom-of-the range car will cost the average household over £3,000 per year: that's £62 per week. What could you do with an extra £62 every week?

Could I walk or cycle or take public transport instead of using the car?

Plan your journey in advance to avoid congestion, roadworks and getting lost.

- To plan your journey by public transport visit [networkwestmidlands.com](https://www.networkwestmidlands.com) and follow the link to the journey planner.
- To plan your walking trips visit [walkit.com](https://www.walkit.com)
- To plan your cycling trips visit [cyclestreets.net](https://www.cyclestreets.net) and follow the link to plan your cycle route.

Could you replace a journey?

It doesn't take much to make a real difference. If every driver switched one car trip for an alternative way of travelling, just one day a week, the impacts would be significant.

Discover the benefits of travelling in other ways

Have you thought of the benefits you could enjoy from making some of your journeys low carbon by 'active' means like walking and cycling?

Benefits to you:

- **Health:** incorporate active travel into your routine
- **Wealth:** save money by making more economical travel choices
- **Time:** save time or allow yourself to use your time more productively while travelling
- **Quality of life:** by providing you with opportunities to travel in stress-free ways at the same time as protecting your local environment.

The true cost of cars

The true cost of motoring

You won't know if your new driving style and practices are working unless you know the average miles per gallon (mpg) of your car. Some cars have onboard computers, but they are not always accurate.

To find out your fuel consumption rate, simply make a note of the following when filling up your car:

- The number of litres of fuel you put in
- The cost per litre of fuel
- The vehicle mileage
- Then, find the fuel consumption figure using the online calculator at: torquecars.com/tools/uk-mpg-calculator.php

Work it out yourself

- Fill your tank to the top
- Zero the trip counter
- When you next fill up, note the mileage driven
- Fill the tank again and note the number of litres put in

- Divide the number of miles driven by the amount of fuel used (miles per litre)
- To convert the figure to miles per gallon multiply it by 4.544

Example

- Frank fills his tank to the top and zeros the trip counter.
- His trip meter reads 160 miles when he next fills up and it takes 22 litres to fill his tank.
- Frank works out that his fuel consumption has been: 160 divided by 22 = 7.273 miles per litre.

This is $7.273 \times 4.544 = 33.05$ miles per gallon.

It's easy to overlook the full cost of running a car.

As time goes by, you will have to pay servicing costs, parts and repairs and the value of your car will decline.

Whether you drive a lot or a little, you still have to pay:

- Car tax
- Car insurance
- MOT test

There may also be other costs such as:

- Membership of a breakdown service
- Parking charges or private garage fees
- General repair and maintenance expenses

When you add all these costs together the true cost of running a car is staggering, as shown in the table below (for vehicles registered before 1st April 2017)

The cost of driving a new vehicle per annum ¹	Up to £13,000	£13,000 to £18,000	£18,000 to £25,000	£25,000 to £32,000	Over £32,000
Standing charge					
Road Tax	£110	£145	£180	£283	£609
Insurance	£360	£409	£481	£571	£762
Cost of capital ²	£203	£251	£355	£494	£877
Depreciation (at 10,000 miles per annum)	£1190	£2156	£2611	£3672	£6974
Breakdown cover	£50	£50	£50	£50	£50
TOTAL	£1913	£3011	£3678	£5070	£9271
Running cost ³	£1856	£2114	£2283	£2531	£2906
Total cost per annum (£)	£3769	£5125	£5961	£7601	£12177
Total cost per mile (pence)	37p	51p	59p	76p	£1.21

¹ Based on driving 10,000 miles per year.

² Cost of capital is money tied up in a vehicle which could be earning interest in a deposit account.

³ Includes fuel, tyres, service labour costs, parking replacement parts.

Adapted from: theaa.com/motoring_advice/running_costs/index.html

NB. From 1st April 2017 the Vehicle Excise Duty (VED) will charge for all new vehicles registered after that date. Cars registered before 1st April 2017 will remain in the current VED system.



Whilst all care has been taken in the preparation of this guide, no responsibility is taken for the accuracy of the contents and users may wish to supplement it with information from other sources.

This guide has been adapted from an original produced by Steer Davies Gleave and Bristol City Council. With thanks to Bristol City Council.

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