

SmartDriving Better Driving Advice

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Save money ... Save the Planet!

If you've ever wondered where the *engine brake* is ... read on ...

Eco-driving is not new. In Germany the integration of eco-driving into car driving courses was introduced as far back as 1993. Before that, many companies in Europe had already recognized the value of training their drivers to save fuel. The first curriculum entitled '*Training for environmentally conscious and driving behaviour during driving instruction*' was published by the technical University of Berlin (in conjunction with the German DOE and Volkswagen); this was later integrated into the curriculum '*Practical car training*' developed by the German Federation of Driving Instructor Associations.

From the autumn of 2005 eco-driving was officially incorporated into 'the British driving psyche'. All student driving instructors had to demonstrate 'eco-friendly' awareness as part of their Driving Standards Agency (DSA) instructors driving test. This was the first step towards making the UK a nation of eco-aware drivers on a mission to save the world from excessive pollution and global warming. **Eco driving is now assessed in all UK driving tests.**

'**ECO-DRIVING Europe**' is an organization whose aim is to promote eco-driving throughout Europe. Eco-driving can be described as driving *ecologically* – doing your bit to slow down global warming and pollution levels. However 'eco' can equally stand for *economy*. By following eco-driving principles you can save cash, and even improve your journey times in some situations! It's estimated that drivers who average 20,000 km a year driving can increase their efficiency to such a degree that the same fuel costs would take them 26,000 km after being trained in eco-friendly driving methods.

Of course, some UK driving instructors already teach eco-driving. The RAC published a booklet called 'Driving with Economy' (aimed at instructors) as long ago as the early 1980's. While this booklet was mainly about safety and economy, the principles it covers are in fully line with modern eco thinking.

The first step towards becoming an Eco Driver is to change the way you think ...

It's easy and it doesn't cost anything!

Typically, when talking to drivers about saving fuel they often assume that we will all have to drive smaller cars, drive them slowly and only go out on Sundays, use fuel saving devices or buy expensive fuel additives ... This is not strictly true, at least for the time being.

Some vehicles are obviously more eco-friendly than others, especially modern hybrid vehicles (e.g., Honda Accord hybrid, Toyota Prius, etc.), but it's possible to become more eco-friendly without getting rid of your present vehicle. ***In fact, you can sometimes achieve higher average journey speeds and still save fuel.***

The decelerator and reading the road ...

One of the first and most basic rules of eco-friendly driving is to learn about the *decelerator* pedal. If your driving instructor didn't tell you about the decelerator, you will find it on the right hand side next to the footbrake. *Some people still call this pedal the accelerator (gas pedal).* The decelerator can save lots of cash in brake linings (plus associated garage fees) and fuel.

Over the years as a passenger or teacher, I have sat beside many drivers who would do well in the world tap dancing championships with their right foot bouncing constantly to-and-fro between the gas pedal to the brake pedal. By recognising the power of engine compression (*the engine brake*) you can calm your feet down and probably reduce the risk of a heart attack!

The trick is to learn to read. Not books or online driving courses - although you could learn a lot there; *But rather to 'read the road'.*

By *reading the road* well ahead you can anticipate the changes in traffic flow and release the accelerator pedal early. This will slow you down gradually through the process of engine braking. This process is commonly called *acceleration sense* but perhaps *deceleration sense* might be an equally good, if not better term to use. Developing your deceleration sense will lower your stress levels and those of your passengers (hence the reduced risk of heart attack!) because there will be less *last minute braking* to avoid other idiots.

The starting point for learning balanced use of the footbrake and accelerator is to go out for a drive in the country and to learn how to do *nothing* with your right foot.

Drive for about an hour on open roads, keeping your speed up, but trying not to touch the brake pedal. In order to achieve this you will need to watch the road well ahead and use the gas (accelerator) sparingly. If you must use the footbrake, be gentle! Learn to *squeeze and ease* the both the accelerator and brake pedals lovingly.

Gears and acceleration to save the planet ...

Another important point here is that you *should not change to a lower gear to slow the car down*. Change gear only when you need to squeeze the gas pedal for more power.

You could also try driving for about 20 miles on a moderately busy motorway maintaining a *constant* speed of around 55/60 mph in 5th or 6th gear – not faster, not slower. Do this by reading the road ahead and monitoring your mirrors to plan early lane changes.

Another planet (and money) saver is to avoid harsh acceleration. One of the ways that engines lose efficiency is through friction, the higher the engine speed, the greater the friction and inefficiency. With this in mind you should change up through the gears as soon as possible to maintain low engine speeds and maximum efficiency. In petrol cars this means changing up at around 2500 rpm, with diesel engines at about 2000 rpm.

After shifting up through the gears a steady cruising speed will help reduce fuel use (make use of your cruise control if you have one). This brings us back to reading the road ... If you are not in a hurry a speed of 55mph will offer a god compromise between 'getting there' and saving fuel, but whatever speed you drive your fuel consumption will benefit from less speed fluctuation.

How common is commonsense?

Often, basic commonsense can improve fuel efficiency; with this in mind, *when did you last look in the boot?* The reason that I ask this question is because I meet lots of drivers who carry all sorts of old junk around for no reason.

One occasion I remember involved a Sunday lunch which included the 'most travelled' potatoes in the country. I had bought a hundred-weight sack of potatoes (about 51 kilos) at a farm shop at a bargain price and then promptly forgotten that they were in the boot. Over the next ten days they travelled about 1200 miles. *With the consequent cost in fuel I could have probably eaten at a Michelin Star Restaurant!*

It's not only the load *inside* the car that can increase your fuel consumption. The drag caused by loads on a roof rack can add considerably to your fuel bill (at *least* 20%)...

When possible leave the kids at home and pack all your stuff into the car – the journey will be cheaper and much quieter!

Then there are the tyres. *Do you know what the recommended tyre pressures are for your car?* Under-inflated tyres use more fuel and compromise your safety. Many manufacturers recommend different pressures for driving an empty car as opposed to a car which is fully loaded. *Get out your car handbook and do a bit more reading.*

Learn about your car - Your handbook will also tell you how to operate all of the ‘gizmos’ - Air conditioning, hi-fi, heated seats, his and her climate control systems, champagne cooler, etc. However, what it probably won’t tell you is that all of these toys use power. And where does that power ultimately come from? **You guessed it - the fuel tank...**

That is YOUR fuel tank; the one filled up with your money.

Warm up to prevent global warming ...

Perhaps the most noticeable fuel eater in many cars is the ‘air-con’; you can hear the engine idling speed raise when you switch it on. So if you are really serious about doing your bit to prevent global warming, indulge in a bit of personal warming!

Maybe switching off the air-con may be going a bit too far, especially if the result is that you are uncomfortable. Being comfortable behind the wheel can make a big difference to your fuel consumption. If you are uncomfortable you will develop unnecessary tension and fatigue, this in turn will affect concentration and smooth operation of the controls, thus increasing fuel consumption and accident risk.

For facts and figures and more information about eco driving visit the ECO-DRIVING Europe web site at: http://www.eceee.org/library/conference_proceedings/eceee_Summer_Studies/2003c/Panel_3/3074raimund

Drive safely (and cheaply!) and remember to use the engine brake...