

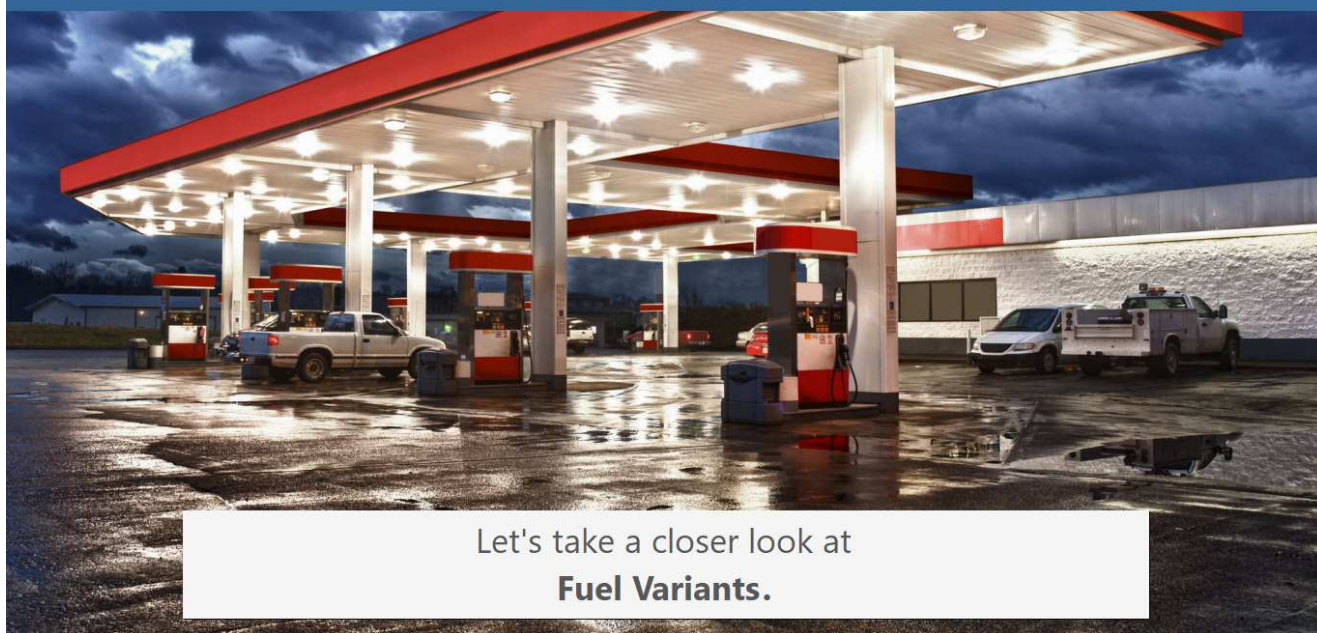
Fuel Variants

Fuel Variants

Welcome to this **Perfect Driver** course. Throughout this course, we are going to look at the law, skills, techniques, and ideas to help you become a better, and safer driver.

In this lesson, we'll look at **Fuel Variants**.

Fuel Variants



Let's take a closer look at
Fuel Variants.

Fuel Variants

Fuel

Any car runs on one or more of six different types of fuel. These include:

- Petrol.
- Liquid Petroleum Gas (LPG).
- Battery / Electricity (hybrids).
- Diesel.
- Biofuels.
- Hydrogen.

Each has their own advantages - either in cost, convenience, or carbon footprint.



Fuel Variants

Petrol

Most cars run on **petrol**. It is the easiest to obtain, available everywhere, so is not a problem to find.

Not so long ago, you only had a choice of regular and premium fuels. Now the choices are a little wider. If your car runs on petrol, your petrol choices now include:

- E10 (and sometimes E85)
- Regular
- Premium 95
- Premium 98



Fuel Variants

Petrol

E85 and **E10** are the cheapest fuels. Then, **Regular** fuel, and finally, the **Premium** fuels are the most expensive. The higher the number (or octane, technically), the more expensive the fuel will be.

In some cases, you get to choose what petrol you put in your car. Let's have a quick look at what you should consider before selecting a fuel.



Fuel Variants

Petrol

Before you select the fuel best for your car, you should find out what fuel the car is *designed* to run on. You can check this online, or with your mechanic, dealer, or car user guide.

Some cars, especially performance cars, are designed to run on the more expensive fuel - Premium 98, or Premium 95, for best performance.

In general, most cars can use any of these fuels. E10, which contains 10% ethanol, is the cheapest petrol of all, but not necessarily the most economical.



Fuel Variants

Petrol - is Premium Fuel Worth it?

Premium 98 fuel may cost around 20 cents a litre more than standard premium fuel. Is the extra cost worth it?

If your car is designed for this fuel, like many sports cars, yes. For other cars, the jury is out. There is no definitive answer. There is no doubt that higher octane fuels, like Premium 95 and Premium 98 are more efficient - meaning you will get better mileage from them - but it's just a question of math - is the extra mileage worth the extra cost?

Some will say you also get better performance. It is true that the premium fuels ignite in a slightly different way which might support this argument. But you may need to try it for yourself.



Fuel Variants

Biofuels

E85 is the most widely available biofuel, containing 85% ethanol. Ethanol is made from fermented plants, including sugar cane, wheat, corn, sorghum and barley. It has the lowest carbon footprint, and is also the cheapest, but not necessarily the most economical.

So, although E10 (10% ethanol) or E85 is cheaper per litre to purchase, you will not get the same kilometres per tank from your car using these biofuels.

Do not use E85 unless you are sure your car is designed for this form of fuel.



Since the introduction of the Series 2 Holden Commodore VE, all models are flex-fuel compatible and able to run on general petrol or E85 ethanol technology.

CONTINUE

Liquid Petroleum Gas (LPG)

LPG as a fuel is not as popular as it once was. It uses gas as a propellant (butane and propane), and is cheaper per litre, in general, than petrol.

To run on LPG, a standard car needs to have a conversion kit installed. In some cars, the ability to run petrol or LPG are available to the driver.

The adoption of LPG has largely been eclipsed by newer options like biofuels, hybrids, and diesel fuels.



Fuel Variants

Hybrids

Hybrids, at this stage, appear to be the future of cars. Hybrids are designed to run either solely on electrical power (battery), or a mixture of some other fuel and battery power. In any event, the economy of hybrids means they are much cheaper to run than standard cars.

However, hybrids tend to be more expensive to buy, have to be *charged* (plugged in), and may not have the range (*kilometres per charge vs kilometres per tank of fuel*) that standard fuelled cars have.



Fuel Variants

*U.S. and EU law requires
electric car makers to ensure
their cars make artificial noise
so they are safer for
pedestrians.*

CONTINUE

Fuel Variants

Diesel

Diesel is a form of fuel similar to petrol, but internally, it works inside the engine in a slightly different way.

For a long time, diesel was only used in heavier vehicles, and was considered a slightly dirty fuel. Today, however, diesel is a much more palatable alternative, given it is now much cleaner, and diesel cars are tremendously more economical, and so cheaper to run, than petrol based cars.

Diesel cars often come as 'turbos', to counter the lack of power and performance when compared to standard petrol fuelled cars.



Fuel Variants

Hydrogen

Hydrogen is a zero-emission fuel that is still largely under development as a fuel for cars. Large scale tests are underway, and Australia recently announced trials will be held here in conjunction with Hyundai and Toyota as the viability and reliability of hydrogen fuel.

The main issue with hydrogen fuel is safely storing and transporting it. Australian scientists are working on using ammonia as a means to do just this, and converting this ammonia to hydrogen as it is needed.



Fuel Variants

SUMMARY

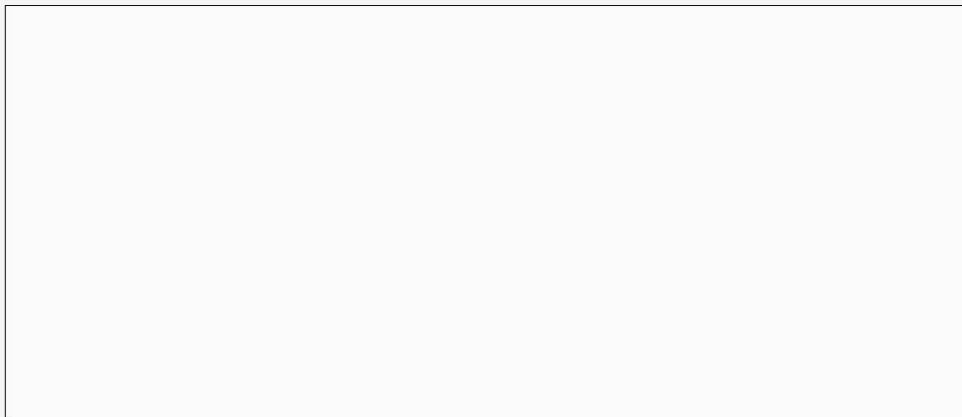
In this lesson, we discussed the various types of **Car Fuels**, as well as the advantages and disadvantages of each. These included:

- Petrol.
- Is Premium Fuel Worth it?
- Liquid Petroleum Gas (LPG).
- Battery / Electricity (hybrids).
- Diesel.
- Biofuels.
- Hydrogen.

FINISH LESSON

Fuel Variants

Signature. It is very important that you use the mouse, or touch, to *sign* the form below. This helps us record your progress accurately.



SUBMIT SIGNATURE

CLEAR SIGNATURE

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