

This Free E-Book is brought to you by Natural-Aging.com.

**[100% Effective Natural Hormone Treatment](#)
Menopause, Andropause And Other Hormone Imbalances
Impair Healthy Healing In People Over The Age Of 30!**

Hybrid Cars – Technology Of The Future Or Passing Fad?

By Rick Hendershot

Hybrid cars have been getting a lot of buzz the last three or four years, and now with the soaring cost of oil and gasoline, hybrids are expected to get hotter than ever. Here are some Questions and Answers about hybrids.

1. What is a hybrid car?

A vehicle is a hybrid when it combines two or more sources of power. Hybrid cars almost always have a gasoline engine and an auxiliary electric motor system that runs off rechargeable batteries.

We normally assume that the point of hybridization is to save fuel, and that is definitely the case with most of the smaller compacts and sedans. But in fact some of the more upscale hybrid models are more concerned with boosting power and "performance" without the usual loss in fuel efficiency.

2. Do you have to plug your hybrid in at night?

You may assume because a hybrid car runs part of the time off its battery pack, that it is necessary to plug it in at night and recharge the batteries (like a golf cart!). But this is almost never the case. Hybrid cars recharge their batteries "on the fly" by making use of unused energy which is normally wasted during normal driving.

For instance, most have a system that captures some of the energy used while applying the brakes, and converts it to electrical energy to charge the battery. This is called "regenerative braking".

If hybrids had larger battery packs that you could plug into the electricity grid, they would be able to transfer more of the vehicle's power requirements over to the electric motor(s), and use even less gasoline. But most auto makers have been unwilling to go this route, arguing that today's batteries could not take the extra load and more extensive usage.

3. Do you have to replace the batteries?

Hybrid Cars – Technology Of The Future Or Passing Fad?

The short answer is No. Hybrid batteries typically have an 80,000 – 100,000 mile warranty. The U.S. Department of Energy tested them to 160,000 miles and stopped testing because they still performed almost like they were brand new. Some taxi drivers have gone more than 200,000 miles in a Toyota Prius without battery problems.

In any event, since hybrid battery packs have hundreds of cells, individual cells or modules could be replaced if there was a problem.

The best way to keep nickel metal hydride batteries performing at their peak is to keep their charge between 40% and 60% — never fully charged and never fully drained to zero power.

4. How long have hybrids been around?

Alternatives to the ICE (internal combustion engine) in automobiles have been around since at least

1900. The first patent for a gasoline–electric hybrid vehicle was filed in 1905. Alternative fuel sources were wiped out as a result of two things. First was the development of the electric self–starter (in 1913) that made gasoline driven cars much easier to start.

The second development was the advent of the age of cheap oil that started around the time of the first World War. This completely removed the economic incentive to look for alternative fuel sources. This is only starting to change now, 80 years later.

5. Are hybrids expensive to purchase?

In January, 2006, there were 10 different hybrid models available from \$19,000 to \$53,000. The most popular models — the Insight, Civic, and Prius — are less than \$30,000. According to auto maker announcements there should be more than 50 models available by 2010. As sales and production increase the prices should not be significantly more than for standard ICE models.

Even with the slightly higher average cost for a hybrid — usually around \$3,000 — these additional initial costs can be offset by federal and state tax incentives, lower maintenance costs, and exceptionally strong resale values.

6. Are hybrids small and underpowered?

Initial hybrid models emphasized fuel economy, so were much lighter vehicles, and had smaller engines. The objective was to offset the loss of power in the ICE with additional power from the electric motor. This would result in essentially the same level of power while burning less fuel.

But this principle does not have to result in underpowered vehicles. In fact the Lexus Rx400h and Toyota Highlander Hybrid both have a 270 horsepower power system. And the Lexus GS 450h hybrid sedan is expected to have more than 300 horsepower and go 0–to–60 in less than six seconds. Taking the quest for hybrid power even further, the Toyota Volta concept vehicle has a 408 hp power plant.

7. What is the main reason people buy hybrid vehicles?

Saving money on fuel is the first thing most buyers think of. But, in fact, the amount saved on fuel over the life of the vehicle may not equal the extra purchase cost of the hybrid.

There are obviously other factors at play in the gradually building popularity of hybrids. Some people want to make a "green" statement, others simply want to be the first on the block with a new and promising technology.

8. Will hybrid technology save the environment?

There's no doubt about it. Hybrids are becoming more popular. In the past five years hybrid sales in the U.S. have grown 2000 percent. Sales in 2000 were 9,500, and by the end of 2005 had grown to over 200,000.

But even this larger number is just 1.2% of the 17 million new cars sold last year. If every hybrid gave double the current fuel economy, from an average of 20 mpg to, say, 40 mpg, that would save roughly 100,000 gallons of gasoline a day. But that amount pales in comparison to the total daily gasoline consumption in the U.S. — 400 million gallons! The savings of 100,000 gallons would bring that number

all the way down to ... 399,900,000 gallons.

Not very significant. Obviously governments and auto makers will have to start getting very serious about hybrid technology before it will make a significant difference.

9. Does that mean hybrid technology is only a fad?

No it does not. Because the only way towards a sustainable future is to find a combination of fuels that will reduce our almost total dependence on oil. Hydrogen fueled vehicles will be part of that future, as will fuel cells, deisel, and alternative fuels such as ethanol.

But what is almost certain is that every promising solution will involve some kind of hybrid combination of technologies. So today's hybrid vehicles are an important and necessary step towards a much more promising and sustainable future.

Rick Hendershot does website promotion. Get 100 Links a Month at

<http://www.linknet-promotions.com/linknet-news.com>

| California Traffic School –

<http://www.trafficinteractive.com>

| Freesms in deutsche handynetze versenden –

<http://www.sms2website.de>

What You Should Know About Gas–Electric Hybrid Vehicles

By Carol Evans

As gas prices continue to rise to unprecedented heights with future increases on the horizon (projected prices for the summer of 2006 are as much as \$1.50 per liter, or \$6 per gallon) more and more people are considering purchasing a hybrid vehicle. It is important to understand what a hybrid car is, what types are available, and the benefits of purchasing a hybrid vehicle.

A hybrid car is a vehicle that uses a combination of at least two different fuel sources for its propulsion. Although many combinations are possible, generally when people are talking about hybrid cars, they are referring to cars with a combination of a gasoline internal combustion engine, an electric motor, and a battery that powers the electric motor and stores energy for future use. Hybrid cars may also be called gas–electric hybrids.

Some examples of current hybrid cars include the Toyota Prius, Honda Civic Hybrid (HCH), the Ford Escape Hybrid, the Honda Accord Hybrid, and the Honda Insight.

Due to their special use of technology, hybrid cars receive much higher gas mileage than the average U.S. vehicle. In fact, hybrid cars hold the top spots for fuel economy in their respective categories: two–seaters, compact cars and mid size cars. The clean burning hybrids also receive a one–time deduction for tax purposes in the year of their purchase, as part of the Federal Government's clean air initiative. Hybrids will save you money in gas, but this should be set against what they may cost you in other areas. Hybrid cars are as much as \$2,000 to \$5,000 more than the standard version of the same vehicle. They also contain parts that might be more costly to repair or replace due to specialized mechanics. The more complex powertrain of the hybrid car also means that you will require a more specialized mechanic when it comes time for repairs.

Hybrid cars also typically have less power than the non–hybrid version. The emphasis has not been put on speed, and the acceleration capabilities are often not up to par with comparable vehicles.

It is important to remember that hybrid cars are a new technology. As with most technologies, they will inevitably improve over time, so it might be best to hold off on purchasing that new hybrid for a little while, until their engineering catches up to their economy.

copyright©2006 hybridcarzone.com Visit for more

<http://www.hybridcarzone.com/articles>

articles. You'll

also find

<http://www.hybridcarzone.com>

and

<http://www.hybridcarzone.com>

resources.



This Free E-Book has been brought to you by Natural-Aging.com.

[100% Effective Natural Hormone Treatment](#)
Menopause, Andropause And Other Hormone Imbalances
Impair Healthy Healing In People Over The Age Of 30!