



## Misconceptions about Driving - mental\_floss on YouTube (Ep. 10)

### Misconceptions

<https://youtube.com/watch?v=TpgumObCkc0>

<https://nerdfighteria.info/v/TpgumObCkc0>

Hi, I'm Elliott and this is mental\_floss on YouTube. Today I'm going to talk about some misconceptions about driving and cars. So pull over... no, it's a cardigan, but thanks for asking.

[mental\_floss theme music]

Misconception #1: Building roads or adding highway lanes will decrease people's commute times.

In 2011, University of Toronto professors Gilles Duranton and Matthew Turner confirmed what's known as the fundamental law of highway congestion. This law explains that widening and building roads actually add traffic, because an increase in roads leads to an increase in cars on those roads. According to Turner, "We find that a one percent increase in road lane kilometers causes almost exactly a one percent increase in driving." Did you hear that, city of Los Angeles? We're doomed.

Misconception #2: Manual cars are more fuel efficient.

In the past this one was generally true, but nowadays whether an automatic or a manual is more fuel efficient totally depends on what kind of car you're driving.

Misconception #3: It's safe to talk on a hands-free cellphone while driving.

You probably understand by now how bad it is to talk on the phone or text while driving, but you may not know why it's frowned upon to have conversations using Bluetooth or speakerphone. According to the National Safety Council, in 2010, 1.1 million car crashes happened while one driver was talking on a cell phone. And when the NSC compared 30 studies about this, they noted that there was no safety benefit if the driver was using a hands-free phone. The real problem is that cell phone conversations are a cognitive distraction: drivers are focused on something other than driving. I play air guitar while I'm driving; is that frowned upon too? Mark? Mark, stop playing air - no, air drum, you're on air drums, Mark!

Misconception #4: Highways were designed for emergency plane landings.

There's been a persistent myth that like one in every five miles of US highways must be straight so that planes could land there in emergencies. Many believe that when the Interstate Highway System was put in place in the 1950s, the government wanted highways to serve as emergency air strips, especially in case of war. But a spokesperson for the Federal Highway Administration has said, "No law, regulation, policy, or sliver of red tape requires that one out of five miles of the Interstate Highway System must be straight."

Misconception #5: To save gas, use A/C on highways and roll down your windows on surface streets.

The real truth is that the best way to save gas is just always turning the A/C off, no matter what speed you're going. Actually, if you really want to save gas, rolling up the windows *and* turning off the A/C is the way to do it. But you probably shouldn't do that unless you want to start resenting your car. So, many studies have confirmed that having the windows down is the better option at all legal speeds.

Misconception #6: Fill with gas late in the evening or early morning to save gas.

The science behind this myth is that gas is denser in cooler temperatures, so when you fill up during these times, that dense gas will contain more energy in its volume. It's true that gasoline

expands depending on temperature, but it probably won't at a gas station where gas tanks are stored 15 to 20 feet underground. There, gas is hovering at the temperature of 55 degrees Fahrenheit or around 30 degrees Celsius at all hours of the day.

Misconception #7: You should always let your car warm up first.

During the wintertime, some people let their car idle until it gets warm because they claim that the car will last longer that way. All that does actually is waste gas. Though if it's cold out, you should be cautious. Be sure to drive and brake gently for the first five to ten minutes while your car warms up.

Misconception #8: Always change your oil every three months or 3,000 miles.

Some cars are actually fine between 7,500 and 10,000 miles before they really require an oil change, but every car is different. To be safe, double check your owner's manual and follow the number they provide there.

Misconception #9: Filling up with regular gas as opposed to premium might harm your car.

Most car experts willingly admit that this one just is not true. Like Michael Calkins of Triple A who has said, "On modern cars, even when it says to use premium fuel, mid-grade or regular fuel will work. It will reduce your performance, but if you're not going to be towing a trailer or racing, you don't necessarily need 100 percent of the power."

Misconception #10: Red cars are pulled over most often.

This theory isn't very well studied, but no researcher has found it to be true so far. The only study on this found that you were more likely to get pulled over if you drove a gray car. But if you have one of those cars with the color changing luminescent paint, you should get pulled over for lacking taste.

Thank you for watching Misconceptions on mental\_floss on YouTube, made with the help of all these wonderful people. If you have a topic for an upcoming Misconceptions episode that you would like to see, leave it in the comments. And guys, I'm gonna see you next week, okay? It's gonna be okay. You gotta wait a whole - it's gonna be fine.