

# MARIJUANA & IMPAIRED DRIVING



MYTHS

FACTS &

DEVELOPMENTS

# OVERVIEW

On October 17, 2018 it is no longer illegal to smoke, vape, eat or otherwise consume marijuana in Canada. Several months earlier however – on June 21, 2018 – it became illegal to drive with virtually any tetrahydrocannabinol (THC) in your blood. Legislation proclaimed into law that day also provided law enforcement with additional means to detect the presence of cannabis and other drugs. It also specified that on December 21, 2018 important changes would be made to the criminal code that will close key loopholes that have allowed many drunk drivers to avoid convictions.

## CANNABIS AND OTHER DRUGS

### CHANGES TO THE LAW

Driving impaired by narcotics was first made illegal in Canada in 1925. This was broadened in 1951 to prohibiting impaired driving by any drug from impaired by narcotics. On June 21, of this year, per se levels of cannabis and several other drugs were added to the law. Per se legislation, at least theoretically, makes it unnecessary to provide evidence beyond a reasonable doubt that a driver's ability was impaired by alcohol or a drug. The driver is considered to have committed a crime if the alcohol or drug was present in their blood in the proscribed amounts. A per se limit already existed for alcohol with 50 mg in 100 millilitres of blood.

According to the Canadian Centre on Substance Use and Addiction (CCSA): Per se laws for drugs are often viewed as a more effective means of dealing with drug-impaired drivers than the current system that requires evidence of impairment.” This type of legislation has been shown to reduce judicial costs, improve enforcement and deterrence and, at least in the case of drinking and driving, reduce fatalities.

1

### Summary Offence

A straight summary conviction offence for drivers with low BDC. Summary conviction: 2 ng but less than 5 ng THC/ml blood

2

### Hybrid Offence

A hybrid offence for drivers with impairing BDC, drug alone 5 ng or more THC/ml of blood

3

### Hybrid Offence Drug/Alcohol

A hybrid offence for drivers with low BDC in combination with low blood alcohol concentration (BAC), drug and alcohol: 2.5 ng or more THC/ml of blood combined with a BAC of .05 or more

There are three new offences of having a prohibited blood drug concentration (BDC) of tetrahydrocannabinol (THC) within two hours of driving under the Criminal Code of Canada that specifically target impaired driving.

## THC

A summary offence of 2 ng but less than 5 ng of THC in a millilitre of blood punishable with a mandatory minimum fine of \$1000.

A hybrid offence\* of 5 ng or more THC per ml of blood. Hybrid offences can be summary or, the more serious, indictable offence. The minimum mandatory penalties are the same as for 2 ng/ml. A second offence carries a mandatory minimum imprisonment of 30 days and a third offence minimum of 120 days.

Another hybrid offence\* was created for having 2.5 ng of THC or higher together with over 50 mg alcohol per 100 ml of blood (BAC).

**\*Note: A hybrid offence is a legal term referring to an offence that can be prosecuted either as a summary offence or as, the more serious, indictable offence.**

The new legislation also specifically makes it an offence to have any detectable level of LSD, psilocybin, psilocin, ketamine, PCP, cocaine, methamphetamine, and/or 6-mam. Penalties for these offences are similar to those listed for the hybrid offences above.

A criminal code conviction for impaired driving will also result in a minimum one year suspension of your driver's licence for first conviction. Suspensions increase significantly for second convictions and include minimal periods of jail time.

## ZERO TOLERANCE

It is important to understand that the prohibition of THC in the blood at the 2 ng level amounts to a **zero tolerance** policy. Even a couple of puffs of marijuana are almost certain to raise your blood drug concentration (BDC) to 2 ng at some point.

The reasoning behind this is that the same level of THC in the blood of different people can have vastly different effects. With alcohol, almost no one shows signs of impairment with a BAC of 20 mg while almost everyone does exhibit signs of impairment with a BAC of 80. Researchers have not found equivalent ranges with THC and, more specifically, have not determined any BDC of THC where everyone is unaffected. The government has decided, based on this and other evidence that zero tolerance is the best policy to reduce the problems on our roads.

## ZERO TOLERANCE

### IN PLAIN LANGUAGE

**There is no amount of cannabis that can be smoked where you will be sure to remain below 2 ng of THC per millilitre of blood**

The Ontario government has also added explicit zero tolerance regulations for drivers relating to THC and other drugs for all drivers 21 and under as well as all novice drivers with G1, G2, M1 and M2 regardless of age. It also adopted a zero tolerance policy for alcohol, THC and other drugs for drivers who are operating commercial vehicles requiring Class A through F licences, vehicles requiring a Commercial Vehicle Operator's Licence (CVOR) and road building machines.

# CHANGES IN ENFORCEMENT

## Bill C-46

Bill C-46 authorizes law enforcement to use an oral fluid sample device at the roadside if they have reasonable grounds to believe a driver has drugs in their body. This oral screening device makes it easier to detect the presence of THC, cocaine and methamphetamines amongst others. These are three of the most commonly found drugs in drivers who have been fatally injured in collisions. The device does not indicate the quantity of a drug in the blood or provide information of actual impairment, only its presence in the driver. A positive finding would then lead to further investigation. These devices though will provide more specific information on what drugs are present than the SFST (standard field sobriety test).



Further investigation normally involves going to a police station. Specially trained officers in Drug Recognition Experts (DREs) can then conduct a twelve step investigation designed to determine which drug or drugs may be causing impairment. A blood sample may also be taken to determine the presence of drugs and or alcohol. Currently there are 833 DREs in Canada with over 13000 officers trained to administer a SFST. The government has committed \$81 million over the next 5 years to train more officers with these abilities. The legislation has also made it easier to collect blood samples in a timely manner. The provision that a physician had to be present which usually meant that those suspected of impairment needed to then be taken to a hospital with the delays and costs that this could entail has been repealed. Now it is permitted that the blood sample can be taken by qualified technicians as determined by regulations from the attorney general.



### A Caution to Chronic Users

In chronic or heavy users of marijuana, some THC gets stored in the fat cells. It then can seep back into the blood stream. This is the reason that THC has been detected in the blood up to 4 weeks after some people have last smoked or otherwise consumed marijuana.

# AN OLD MYTH AND WHAT THE EVIDENCE DOES SHOW

**“I drive better stoned.”** In one survey, 10% actually believe this. Probably even more disturbing was the fact that 50% believed it has no effect on their driving. Still others confuse reports that driving high is less dangerous than driving drunk as meaning that it is safe rather than simply less dangerous.

Research into marijuana impaired driving is complicated by a host of factors including the variations in the quality and quantity of the cannabis consumed, the method by which it is absorbed, whether it is being used in combination with alcohol or other drugs including medicines, the fact that it is illegal to drive impaired, etc. Still, a host of studies have been done to determine its effects on drivers. Random spot checks have been done, simulator studies have been conducted, surveys carried out, etc. One of the most telling sources of evidence comes from toxicological examinations of fatally injured drivers.

One such study looked at the toxicological findings over a one-year period in Ontario. 56% of the fatally injured drivers tested positive for alcohol and/or drugs. Cannabis was found in 27% of those drivers, placing it second only to alcohol.<sup>1</sup>

**50%**

**BELIEVED IT HAS NO EFFECT ON THEIR DRIVING**

**56%**

**FATALLY INJURED DRIVERS TESTED POSITIVE  
FOR ALCOHOL AND/OR DRUGS**

**27%**

**TESTED POSITIVE FOR CANNABIS, PLACING  
IT SECOND ONLY TO ALCOHOL**

1. Toxicological findings in fatal motor vehicle collisions in Ontario, Canada: a one-year study; Woodall, K.L., Chow B.L. Lauwers, A., Cass D., Journal of Forensic Science, Epub 2015 Feb 18

**75**

**CANNABIS RELATED  
DEATHS**

**4407**

**CANNABIS RELATED  
INJURIES**

Another study that looked at the costs of cannabis-attributable collisions in Canada's provinces concluded that "Cannabis-attributable traffic collisions were estimated to have caused 75 deaths" as well as 4407 injuries in 2012. Including property damage only collisions with the fatal and injury collisions, they estimated the cost to the country as exceeding \$1.095 billion. These estimates did not include the costs to the northern territories.<sup>2</sup>

An international study that did a systematic review of the research regarding cannabis consumption in real life situations "found a near doubling of risk of a driver being involved in a motor vehicle collision resulting in serious injury or death. The increased risk was most evident for high quality studies, case-control studies, and studies of fatal collisions."<sup>3</sup>

**\$1.095+  
BILLION**

**ESTIMATED COST FOR FATAL/INJURY  
COLLISIONS & PROPERTY DAMAGE**

2. Estimating the harms and costs of cannabis-attributable collisions in the Canadian provinces, Wettlaufer, A, Florica R.O., Asbridge, M., Beirness, D., et al, Drug and Alcohol Dependence, April 2017

3. Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis, Asbridge M, Hayden JA, Cartwright JL, BMJ, 09 February 2012

# **"MARIJUANA - IMPAIRED DRIVING IS LESS DANGEROUS THAN DRIVING DRUNK"**

The grain of truth in this statement is that more drivers are killed by those impaired by alcohol than by those impaired by marijuana. The main point is missed with this "logic" and that is the key word in "less dangerous" is dangerous. The 75 people killed in cannabis-attributable collisions in Canada in 2012 were 75 people too many. There is also the disturbing trend that amongst younger drivers fatally injured in collisions in Canada in recent years marijuana is being found more than alcohol.

## **"I WON'T GET CAUGHT"**

It is almost certainly true that on any given night that the majority who drive impaired by alcohol and or drugs do not "get caught". The resulting belief amongst many drug users that "I won't get caught" ignores three key facts. First that over time, significant numbers do get caught. For example, if on any given night, only 1% of impaired drivers get caught, and you drive impaired by drugs just twice a month, over the course of three years, the majority will be caught. And being caught just that one time will have serious and far-reaching consequences.

### **MYTHS**

**"I DRIVE BETTER STONED"**

**"MARIJUANA-IMPAIRED  
DRIVING IS LESS  
DANGEROUS THAN  
DRIVING DRUNK"**

**"I WON'T GET CAUGHT"**



How will you get around without your driver's licence for a year? How will you handle the ensuing insurance costs? Second, some never get "caught" but crash and cause tremendous harm or even death. Third, the government and police forces are actively taking measures to increase and improve enforcement. Police need a reason to stop a driver but those under the influence of THC may unwittingly provide that reason.

A claim made by some drivers who drive while impaired by marijuana is that they drive more cautiously and, specifically, drive slower than normal. This might partially reduce their increased risk of being in a crash since there is evidence of longer reaction times. However, unusually slow driving may provide precisely the grounds for a police officer to investigate why you are driving that way. At the same time, if they try to avoid driving slowly it is possible that they will be in even more fatal and serious injury collisions than they are already in.

## DRÄGER DRUGTEST® 5000



The driver will swab the inside of their mouth, the process usually takes 30 to 60 seconds, although it has been known to take up to 4 minutes. Once sufficient oral fluid is obtained, the swab will be inserted into the main device which will be kept in the police vehicle. Results of the analysis will be available in approx. 4 minutes.

The device will be used in Canada to detect the presence of THC and cocaine. It detects the presence of drugs but not the quantity.

Positive results will lead to further investigation, routinely done at police stations.

Currently the device is being used in Germany, the UK, Australia, and some U.S. states including New York and Arizona.

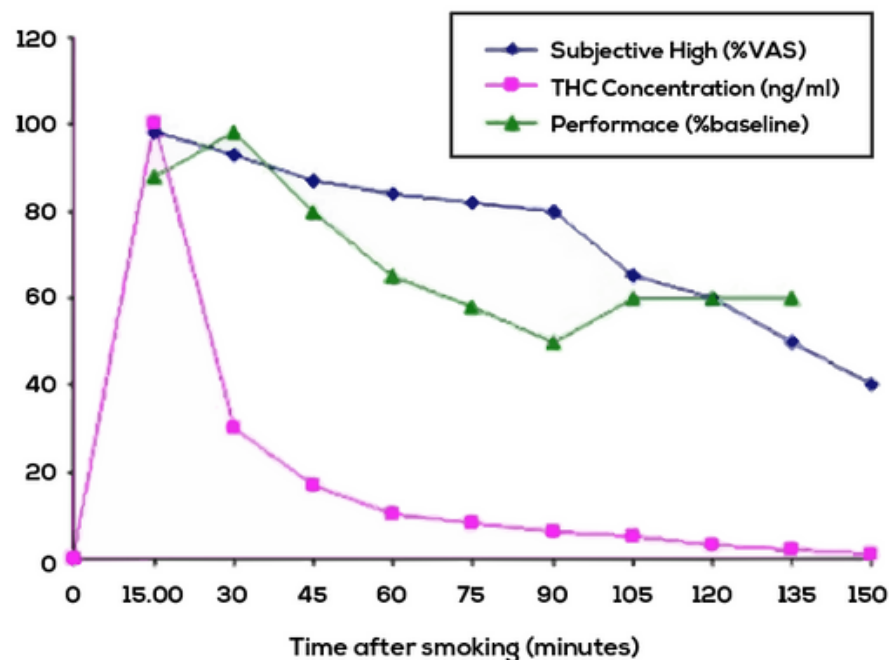
# THC LEVEL IN PLASMA AND IMPAIRMENT

Research linking THC blood drug concentration and level of impairment has been very limited to date, largely due to the illegal classification of marijuana in Canada and most jurisdictions around the world. The research that does exist has shown a different relationship between peak levels of THC and actual impairment, especially when compared to alcohol. There is a very direct relationship between BAC and impairment; quite simply, the higher the BAC, the greater the impairment. After smoking or vaping cannabis, peak levels of THC in the body usually occur within 30 minutes of inhalation cessation.

In contrast, the greatest impairment has been seen 90 minutes after cessation, by which time THC levels in the blood have lowered 80-90% from their peak levels. One thing that high THC blood levels do show is recent use; the actual level of impairment is not so clear. Further complicating the issue is the fact that even when common signs of THC impairment are no longer evident (inconsistent deceleration, poorer lateral control etc.), signs of impairment have been found when drivers are facing complex or novel situations.

Determining THC-impaired driving is something which is not easily done, at least at the present time. However, the evidence showing cannabis found in fatally-injured drivers in much higher percentages than drivers generally points to a very real problem on our roads.

Time Course of Standardized THC Concentration in Plasma, Performance Deficit and Subjective High after Smoking Marijuana (Adapted from Berghaus et al. 1998, Sticht and Kaferstein 1998 and Robbe 1994)



4. Compton, R. (2017, July). Marijuana-Impaired Driving - A Report to Congress. (DOT HS 812 440). Washington, DC: National Highway Traffic Safety Administration.

# EFFECTS ON DRIVING

Research to date has been primarily done in simulators and on open and closed driving courses

## EFFECTS NOTED INCLUDED:

INCREASED REACTION TIMES

DECREASES HANDLING PERFORMANCE

IMPAIRED TIME AND DISTANCE ESTIMATION

IMPAIRED SUSTAINED VIGILANCE

IMPAIRED HANDLING OF COMPLEX TASKS

Evidence points to particular concerns about drivers ability to handle divided attention tasks and distractions.

More research is required to better understand the effects.

## MAKE ALL IMPAIRED DRIVING SOCIALLY UNACCEPTABLE



The fact that the evidence on marijuana-impaired driving is limited, sometimes confusing and even conflicting does not negate the fact that **there is clear evidence that implicates marijuana-impairment in numerous deaths and serious injuries.** More research needs to be done. There is not a comprehensive understanding of all the ways that marijuana impairs our driving. However, enough is known to declare that marijuana-impairment is a problem on our roads. On top of this, there are clear indications that the problem has gotten worse over the last 10 to 20 years. Let's make sure that the decriminalization of the consumption of marijuana doesn't lead to more tragedies. Let's make it a priority to get to our destinations safely, unimpaired by alcohol, marijuana, other drugs or distractions.