TRAFFIC RESOURCE CENTER for JUDGES

Marijuana and Traffic Cases: Testing, Limits, and Research

Issue Brief (August 2019)

This Brief was produced by the Traffic Resource Center for Judges, an initiative of the National Center for State Courts (NCSC). The Traffic Resource Center is a cooperative effort between the Department of Transportation and the National Center for State Courts (NCSC) to establish a resource for judges, court administrators, court clerks, and other court staff on issues related to traffic adjudication.

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DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

NCSC Est. 1971 National Center for State Courts

As of July 2019, most states have repealed their laws making it a crime to possess or use marijuana either recreationally or as prescribed for medical purposes.[1] In moving towards relaxing and/or repealing their existing laws against possession and use of marijuana, existing state laws, testing, and practices related to impaired or drugged driving remained unaltered. Given that many of these laws were written to address and focus on alcohol-impaired driving, some states have moved to instead create and make use of laws and tests that treat marijuana separately and distinctly.

Testing

There are substantial differences between the testing of the concentrations of alcohol in a person's blood and the measurement of the concentrations of THC. Whereas alcohol concentrations can be accurately measured in the

[1] Governing. (2019, June 25). *State Marijuana Laws in 2019*. Retrieved from https://www.governing.com/gov-data/safety-justice/state-marijuana-laws-map-medical-recreational.html

field via breathalyzer-type tests; the development of marijuana breathalyzers is ongoing and as yet there are no comparable testing devices or schema available for determining THC levels.[2] Saliva-type tests for the detection of THC have been suggested, and pilot programs have been developed in several states, but they are not currently used in the United States in an evidential capacity.[3] Their accuracy is unclear and they cannot determine whether the THC is present due to the driver's active consumption of marijuana or passive exposure (such as secondhand smoke).[4]

Additionally, the human body processes marijuana and THC differently than alcohol. Alcohol is processed out of the body in hours and dissipates from the blood at a relatively consistent rate-per-hour. THC levels drop considerably in an hour or so after usage, but because the compound is stored in the body's fat cells, the complete elimination of THC from the body is much slower than with alcohol. The result is that there may be detectable THC levels in the person's bloodstream weeks after consumption.[5]

Additionally, while alcohol is for the most part associated with oral consumption in liquid form, marijuana and marijuana-derived products are associated with a host of delivery mechanisms in addition to inhalation such as oral ingestion (such as edibles), sublingual ingestion (lozenges), and topical applications (CBD oil is the most common).[6]

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[2] Legislation to Make Cars in America Safer: Hearings before the Energy and Commerce Subcommittee on Consumer Protection and Commerce Hearing, House, 116th Cong. (2000) (Testimony of Benjamin Nordstrom).
[3] *Ibid.*
[4] National Highway Traffic Safety Administration (2017). *Marijuana-Impaired Driving: A Report to Congress*. NHTSA DOTHS 812 440. Retrieved from https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812440-marijuana-impaired-driving-report-to-congress.pdf
[5] Congressional Research Service (2019). *Marijuana Use and Highway Safety*. CRS R4579. Retrieved from https://crsreports.congress.gov/product/pdf/R/R45719
[6] Insurance Information Institute. (2019, March 29). Background on: Marijuana and impaired driving. Retrieved from https://www.iii.org/article/background-on-marijuana-and-impaired-driving

Intoxication and Impairment

Alcohol concentration levels and their impact on driver performance have been researched for decades, but there are few similar studies to determine the relationship of specific THC levels and driver impairment. While alcohol content can be measured and that content controlled in the creation/generation process by volume or "proof" levels, marijuana has no such similar measurement or gradations. One marijuana plant may have more or less potency than a plant growing immediately adjacent to it.[7]

While the relationship between alcohol levels (BAC) and driving ability have been studied robustly, the same cannot be said for the relationship between marijuana levels (as measured in nanograms per milliliter of blood) and impairment. "Those studies that have been conducted the consistent finding is that the level of THC in the blood and the degree of impairment do not appear to be closely related."[8] By the same token, a report by the National Academy of Science concluded "there is substantial evidence of a statistical association between cannabis use and increased risk of motor vehicle crashes."[9] There is some question as to whether there is causation (i.e. cannabis use caused the increased risk of motor vehicle crashes) and correlation (younger males are more likely to both use marijuana and have the highest rate of motor vehicle crashes).[10] For example, in 2015 NHTSA conducted its "Crash Risk" study, examining over 3,000 crash-involved drivers and 6,000 control drivers (not involved in crashes). The drug most frequently found in both sets of drivers was THC. Initial data analysis indicated the presence of

[7] Congressional Research Service (2019).
[8] National Highway Traffic Safety Administration (2017).
[9] National Academy of Science (2017). *The health effects of cannabis and cannabinoids: the current state of evidence and recommendations for research*. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK423845/
[10] *Ibid.*

THC represented a significantly elevated risk of crashing by about 25 percent. When adjusted for age, gender, and race/ethnicity that fell to 1.05 times (not statistically significant). When further adjusted to include the presence of alcohol the NHTSA researchers found there was no increased risk of crash involvement found over alcohol or drug-free drivers.[11]

Limits

According to the Governors Highway Safety Association, 18 states have zero tolerance or non-zero per laws for marijuana specifically[12]

- Nine states have zero tolerance for THC or its metabolites: Arizona, Delaware, Georgia, Illinois, Indiana, Oklahoma, Rhode Island, South Dakota, and Utah
- Three states have zero tolerance for THC but no restrictions on metabolites: Iowa, Michigan, and Wisconsin
- Five states have established "per se" laws that sets a specific limit for the amount of THC in a system: Illinois, Montana (5ng per milliliter of blood), Nevada (2ng/milliliter), Ohio (2ng/milliliter), Pennsylvania (1ng/milliliter), and Washington (5ng/milliliter).
- One state (Colorado) provides that drivers with 5 ng/ml of THC can be prosecuted ("reasonable inference" of, but not per se, impairment)

[11] National Highway Traffic Safety Administration (2016). *Drug and alcohol crash risk: A case-control study*. NHTSA DOTHS 812 355. Retrieved from https://www.nhtsa.gov/behavioral-research/drug-and-alcohol-crash-risk-study

[12] Governors Highway Safety Association. (2019, April 10). Marijuana Drug-Impaired Driving Laws. Retrieved from https://www.ghsa.org/state-laws/issues/drug impaired driving