



Factsheet

Driving Under the Influence of THC

Initiative 502 establishes a 5 ng/mL active THC concentration limit for DUI.

Washington's current DUI law already includes "implied consent" and "per se DUI" provisions.

- If you drive on Washington roads, you are deemed to have given consent to tests of your breath and blood if you are "arrested for any offense where, at the time of arrest, the arresting officer has reasonable grounds to believe" you are DUI.¹
- The fact that you are "entitled to use a drug under the laws of this state" (you have a prescription for oxycodone or a medical marijuana authorization, for example) is not a defense.²
- Having a breath/blood alcohol concentration of 0.08 percent is "per se" (in and of itself) DUI, even if you are an experienced drinker and feel you can drive safely at 0.08 BAC.³

I-502 adds a per se threshold for THC and distinguishes THC from THC-COOH. It does not change the legal requirements that must be met before a police officer can take a driver to a medical professional for a blood test.

- I-502 establishes a per se marijuana DUI cut-off of 5 nanograms of active THC metabolite per milliliter of whole blood (5 ng/mL), analogous to the per se 0.08 BAC cut-off for alcohol.
- I-502 does not change the fact that officers still must have probable cause for an arrest and reasonable grounds to believe a driver is impaired before requiring a breath or blood test. Nor does it change the fact that blood tests can only be administered by medical professionals.⁴
- I-502 clarifies that THC-COOH, the inactive marijuana metabolite also known as carboxy-THC that is sometimes used to convict marijuana users of DUI under current law, is not to be considered in determining THC concentration for purposes of the per se limit.

Science supports a 5 ng/mL THC concentration limit as a rational guideline for separating impaired from unimpaired drivers.

- THC impairs driving skills, and the impairment can last for a few hours after smoking or consuming marijuana:

Smoking cannabis impairs driving skills most severely during an acute phase, which typically lasts for up to 60 minutes after smoking. A post-acute phase (60-150 minutes after onset of smoking) and a residual phase (more than 150 minutes after smoking) follow, during which impairment subsides rapidly. The duration of the post-acute phase and the degree of impairment during the residual phase both increase strongly with the consumed dose. After smoking "typical doses" of about 20 mg THC, the residual phase lasts 2-3 hours. The effects of oral cannabis occur later than do those of smoking and typically peak 2-3 hours after ingestion.⁵

¹ RCW 46.20.308, the "implied consent" law.

² RCW 46.61.502, the DUI law.

³ RCW 46.61.502(1)(a).

⁴ See RCW 46.61.506(5).

⁵ Grotenhermen, Leson, Berghaus, Drummer, Krüger, Longo, Moskowitz, Perrine, Ramaekers, Smiley, and Tunbridge, *Developing Science-Based Per Se Limits for Driving under the Influence of Cannabis (DUIIC)* (2005), available at <http://www.canorml.org/healthfacts/DUICreport.2005.pdf>.

- Studies of marijuana use and driving suggest that THC levels exceeding 5 ng/mL are associated with increased risk of accidents.⁶

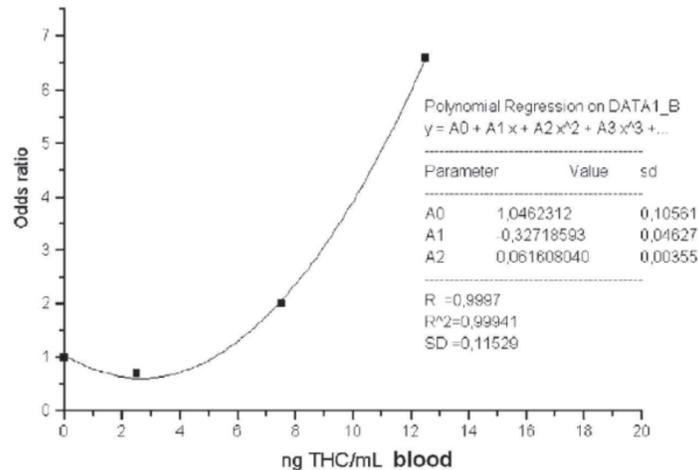


Figure 2.
Correlation between THC concentration in whole blood and accident risk (from Grotenhermen *et al.* (2007)⁷⁸ based on data from Drummer *et al.*⁷³).

Even heavy marijuana users like medical marijuana patients should have their THC levels drop below 5 ng/mL if they wait a few hours before driving.

- Researchers from the National Institutes of Health and Harvard Medical School conducted a clinical study of THC concentrations in 25 daily or near-daily users of marijuana who, on average, had used marijuana for 8.8 years.⁷
- The study’s participants reported daily or near-daily use ranging from 1 “blunt”⁸ to 1 ounce. More than half had used marijuana within 24 hours before admission.
- Only 1 participant had a THC concentration above 5 ng/mL upon admission (7 ng/mL), and it dropped to 2.9 by the next morning. Just 3 participants had levels between 1.0 and 2.0 at the time of admission, 10 were below 1.0, and 9 had no positive THC test result at all.

Scientists should continue to study the relationship between marijuana use and driving impairment, and I-502 earmarks funds for this specific purpose.

- Alcohol BAC limits have changed over time as new information has become available,⁹ and further research may lead to recommendations to revise the THC concentration limit.
- Research requires funding, and I-502 specifically earmarks a portion of new marijuana tax revenues for research and education regarding marijuana intoxication and impairment.¹⁰

⁶ See, e.g., Sewell, R. A., Poling, J., & Sofuoglu, M. (2009). The effect of cannabis compared with alcohol on driving. *Am J Addict.*, 18(3): 185-193. Doi: 10.1080/1055-490902786934; Drummer, O. H., Gerostamoulos, J., Batziris, H., Chu, M., Coplehorn, J., Robertson, M. D., & Swann, P. (2004). The involvement of drugs in drivers killed in Australian road traffic crashes. *Accident, Analysis and Prevention*, 36(2):239-248 (“Drivers with THC in their blood had a significantly higher likelihood of being culpable than drug-free drivers. For drivers with blood THC concentrations of 5 ng/ml or higher the odds ratio was greater and more statistically significant”). doi: 10.1016/S0001-4575(02)00153-7.

⁷ Karschner, E. L., Schwilke, E. W., Lowe, R. H., Darwin, W. D., Pope, H. G., Herning, R., Cadet, J. L., & Huestis, M. A. (2009). Do Δ^9 -tetrahydrocannabinol concentrations indicate recent use in chronic cannabis users? *Addiction*, 104:2041-2048. doi: 10.1111/j.1360-0443.2009.02705.x.

⁸ As described by the participants, the equivalent of multiple “joints” or marijuana cigarettes.

⁹ See, e.g., Laws 1998 c 213 §3, which changed Washington’s BAC standard from 0.10 to 0.08.

¹⁰ Initiative Measure No. 502, Sec. 28.