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Working to Reform Marijuana Laws

# **"YOU ARE GOING DIRECTLY TO JAIL"**

## **DUID Legislation: What It Means, Who's Behind It, and Strategies to Prevent It**

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**"Every state needs a law ... defining, in essence, a crime divorced from impairment; ... that says if you use an illicit drug and drive, you have broken the law. ... We need to treat DUID as important [an offense] as murder, rape, and child molestation."**

-- John Bobo, Director, National Traffic Law Center. "Enforcement and Prosecution of Drugged Driving Laws," speech given February 23, 2004

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There's a new front in the "War on Drugs" and its name is DUID.

DUID, short for "driving under the influence of drugs," is the latest buzzword among politicians and police -- however, in this case, words can be deceiving.

Though billed by its sponsors as a necessary tool to crack down on "drugged driving" offenses,<sup>1</sup> in reality, DUID laws -- in particular "zero tolerance" *per se* laws -- have little to do with promoting public safety or identifying motorists who drive while impaired. Rather, the enactment and enforcement of "zero tolerance" DUID legislation improperly defines many sober drivers as "intoxicated" solely because they were found to have consumed a controlled substance -- particularly marijuana -- at some previous, unspecified point in time.

### DUID DEFINED

There are various types of DUID laws, some more pernicious than others. Today, every state has DUID legislation on the books. These laws fall into three distinct categories:

#### EFFECT-BASED DUID LAWS

Most state DUID laws are "effect based" laws. This legislation forbids drivers to operate a motor vehicle if they are either "under the influence" of a controlled substance, or if they have been rendered "incapable of driving safely" because of their use of an illicit drug. In order for a defendant to be convicted under this statute, a prosecutor must prove that the driver's observed impairment and/or incapacity was directly associated with the ingestion of an illicit substance. To do so, prosecutors typically rely on evidence gathered by law enforcement officers at the scene of an accident (i.e., a driver's failure to pass a field sobriety test, evidence that the motorist was driving at an excessive speed, etc.), testimony from a Drug Recognition Expert (DRE), and/or a positive result from a blood or saliva test indicating recent consumption of a controlled substance. For the most part, this is a multidisciplinary standard that focuses on the totality of circumstances -- most importantly, whether the

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<sup>1</sup> *USA Today*. "Growing danger: Drugged driving." October 21, 2004; *Las Vegas Review-Journal*. "Congress must address issue of drugged driving." March 21, 2004; *New York Times*. "Many, undetected, use drugs and then drive." November 14, 2002.

driver is observably impaired -- and accordingly punishes motorists who drive while impaired from having recently used illicit drugs.

### PER SE DUID LAWS

*Per se* laws prohibit drivers from operating a motor vehicle if they have greater than a set level of a drug or drug metabolite present in their system. Most Americans are already familiar with the most common driving-related *per se* laws: those governing drunk driving which define a driver as legally impaired *per se* if their blood alcohol level tests above .08%. Similar *per se* laws with strictly defined cut-off levels (a designated level of an active drug constituent or metabolite above which a sample is considered to be "positive" for a specific drug) are uncommon for DUID legislation.<sup>2</sup> This is because, according to the US Department of Transportation: "Forensic toxicologists generally have failed to agree on specific [*per se* levels] that could be designated as evidence of impairment. The lack of consensus about *per se* levels of drugs where impairment could be deemed makes it difficult to identify, prosecute or convict drugged drivers in most states."<sup>3</sup>

### "ZERO TOLERANCE" PER SE LAWS

Politicians and police have a simple, if unscientific, response to researchers' failure to define *per se* standards for DUID offenses: to enact "zero tolerance" *per se* laws. In their strictest form, these laws forbid drivers from operating a motor vehicle if they have any detectable level of an illicit drug or drug metabolite present in their bodily fluids. This approach is not based on science but on convenience. In essence, "zero tolerance" *per se* laws define a new, driving-related offense that is, in the words of one of its chief proponents, "divorced from impairment." Under this standard, any driver who tests positive for any trace amount of an illicit drug or drug metabolite (i.e., compounds produced from chemical changes of a drug in the body, but not

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<sup>2</sup> To date, only Nevada has enacted *per se* standards for DUID offenses, though similar bill, SB 8, is presently being debated by the Ohio Legislature. In March, the Virginia Legislature approved *per se* DUID legislation, HB 1896, for certain controlled substances, including cocaine and methamphetamine. THC is not referenced in the bill. HB 1896 awaits the Governor's signature.

<sup>3</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT*. September 2003.

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necessarily psychoactive themselves), is guilty *per se* of the crime of "drugged driving," even if the defendant was sober. In the case of marijuana, these laws are particularly troublesome. THC, marijuana's main psychoactive constituent, may be detected at low levels in the blood of heavy cannabis users for 1-2 days after past use.<sup>4</sup> Marijuana's primary metabolite THC-COOH, the most common indicator of marijuana use in workplace drug tests, is detectable in urine for days and sometimes weeks after past use<sup>5</sup> -- long after any psychoactive effects have ceased. Consequently, under "zero tolerance" *per se* laws, a person who smoked a joint on Monday could conceivably be arrested the following Friday and charged with "drugged driving," even though he or she is no longer impaired or intoxicated.

To date, eleven states have enacted "zero tolerance" *per se* laws: Arizona,<sup>6</sup> Georgia,<sup>7</sup> Illinois, Indiana, Iowa,<sup>8</sup> Michigan,<sup>9</sup> Minnesota,<sup>10</sup> Pennsylvania,<sup>11</sup> Rhode Island, Utah,<sup>12</sup> and Wisconsin.<sup>13</sup> Among these, Arizona, Georgia, Illinois, Indiana, and Utah forbid drivers from operating a motor vehicle with any detectable level of a controlled substance or its metabolites in one's bodily fluids.<sup>14</sup>

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<sup>4</sup> Skopp et al. as cited by Grotenhermen and Leson. Testing for Impairment by Cannabis: A review of established and emerging approaches and methods. May 2004.

<sup>5</sup> Persistence of urinary marijuana metabolites after a single dose of THC may produce detectable metabolites in urine for up to 12 days. See specifically: Law et al. Forensic aspects of the metabolism and excretion of cannabinoids following oral ingestion of cannabis resin. *J Pharm Pharmacol*. 1984: 289-94. Persistence of urinary marijuana metabolites after supervised abstinence in heavy, longtime users has been recorded in clinical studies for periods of 30 to 70 days. See specifically: Ellis et al. Excretion patterns of cannabinoid metabolites after last use in a group of chronic users. *Clin Pharmacol Ther*. November 1985: 572-578 and Dackis et al. Persistence of urinary marijuana levels after supervised abstinence. *Am J Psychiatry*. September 1982: 1196-1198.

<sup>6</sup> Arizona's law calls for mandatory imprisonment upon conviction for a first offense.

<sup>7</sup> Georgia's law calls for mandatory imprisonment upon conviction for a first offense.

<sup>8</sup> Iowa's law calls for mandatory imprisonment upon conviction for a first offense.

<sup>9</sup> Michigan's law took effect in October 2003.

<sup>10</sup> Minnesota's law exempts marijuana and marijuana metabolites, stating, "It is a crime for any person to drive, operate, or be in physical control of any motor vehicle ... when the person's body contains any amount of a controlled substance in schedule I or II other than marijuana or tetrahydrocannabinols."

<sup>11</sup> Pennsylvania's law took effect in January 2004.

<sup>12</sup> Utah's law calls for mandatory imprisonment upon conviction for a first offense.

<sup>13</sup> Wisconsin's law took effect in January 2004.

<sup>14</sup> Texas is considering similar legislation. As of this writing, House Bill 374, which would define drivers who test positive for cannabis metabolites in their urine at levels above 50 ng/ml as "intoxicated," is pending before the state legislature.



## FEDERAL PROPOSALS

Politicians at the federal level are also campaigning for the greater enforcement of DUID legislation. In 2004, three separate bills were introduced in Congress, two of which sought to mandate all 50 states enact "zero tolerance" DUID laws. Among these, H.R. 3907, introduced in the House of Representatives on March 4, 2004 by Rep. John Porter (R-NV), sought to withhold highway funding from any state legislature that refused to enact mandatory minimum penalties for anyone convicted of driving under the influence of illegal drugs. More ominous, H.R. 3922, introduced in the House of Representatives on March 9, 2004, by Reps. Portman (R-OH), Levin (D-MI), LaTourette (R-OH), Souder (R-IN) and Ramstad (R-MN), sought to mandate states to enact criminal statutes sanctioning any driver who operates a motor vehicle "while any detectable amount of a controlled substance is present in the person's body, as measured in the person's blood, urine, saliva, or other bodily substance." This proposal, later added as a provision to the 2004 House transportation reauthorization act, was approved by the House of Representatives, before the transportation bill stalled conference committee. A companion bill, S. 2480, was introduced in the 2004 Senate by Sen. Charles Grassley (R-IA).

This year, Reps. Porter and Portman have again added language to the House transportation reauthorization bill (approved by the House in March) regarding DUID. The provision, entitled the "Drug Impaired Driving Research and Prevention Act," orders the National Institutes of Health and the National Institute on Drug Abuse to "assess the status of drug impaired driving laws in the United States" and "determine per se unlawful impairment levels for controlled substances." NIH and NIDA are mandated to report their findings to Congress and the Secretary of Transportation no later than 18 months following the law's enactment. The Secretary will then "develop a model statute for states relating to drug impaired driving."

Unlike last year's proposal, this provision does not mandate states to adopt zero tolerance DUID laws. In fact, the Porter-Portman bill is a significant improvement over previous federal efforts, as it for the first time puts Congress on record in support of scientifically-based drug impairment threshold levels as opposed to "zero tolerance."

## BLOOD OR URINE? FLUID MATTERS

The language of "zero tolerance" *per se* laws is critical. Most state zero tolerance DUID laws contain the following language: It is unlawful for any person to drive or be in actual physical control of any vehicle while

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there is any detectable amount of a controlled substance or its metabolite present in the person's body, as measured in the person's blood, urine, saliva, or other bodily fluid.

It is critical to comprehend the distinction between "parent drugs" and "drug metabolites." The term "parent drug" refers to the identifiable psychoactive compound of a controlled substance (i.e., for cannabis-based drugs, marijuana and hashish, the parent drug is delta-9-tetrahydrocannabinol aka THC). By contrast, the term "drug metabolite" refers to those substances produced by the metabolism after a drug is ingested. Though the presence of metabolites in blood or urine is indicative that a certain drug may have been consumed previously,<sup>15</sup> not all metabolites are psychoactive (i.e., Marijuana's THC-COOH metabolite, which is readily detectable in urine, is not psychoactive.), nor does their detection prove *per se* that the parent drug is still present in the body. Consequently, the US Department of Justice affirms that a positive drug test result for the presence of a drug metabolite "does not indicate ... recency, frequency, or amount of use; or impairment."<sup>16</sup> A recent US Department of Transportation report further states that while a positive test for drug metabolites is "solid proof of drug use within the last few days, it cannot be used by itself to prove behavioral impairment during a focal event."<sup>17</sup>

Understanding the various methods of drug detection is also critical. As stated above, most zero tolerance DUID legislation allows for police to mandate a defendant to have his or her "bodily fluids" screened for the presence of drugs or drug metabolites. In most cases, the "bodily fluids" in question are: blood, saliva, and urine. Whether or not a defendant tests positive for DUID will usually be a result of which fluid is analyzed for what compound (parent drug versus metabolites) and how sensitive the detection method is.

### URINE

Urinalysis remains the most popular means of drug detection available in the United States, particularly in workplace drug testing programs. Courts have generally looked upon urine specimen collection, when compared to blood sampling, as a relatively non-invasive practice, and there are national standards for urine testing in place as well as national certification programs for laboratories performing forensic urine drug

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<sup>15</sup> As an analogy, think of a drug metabolite as similar to a fingerprint. Though it indicates a person was present at a certain place, it does not give specific information as to when the person was present, or why.

<sup>16</sup> US Department of Justice, Bureau of Justice Statistics. *Drugs, Crime, and the Justice System* (NCJ-133652). December 1992.

<sup>17</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT.*

testing. However, standard urinalysis tests for marijuana, in their current form, are *not* suitable for detecting drug impairment or recent drug use because the procedure *only looks for and detects drug metabolites*, not the parent drug THC. Presently, no dose-concentration relationship exists correlating drug metabolite levels to drug impairment,<sup>18</sup> and, as stated beforehand, the presence of a drug metabolite, even when confirmed, "does not indicate ... recency, frequency, or amount of use; or impairment."<sup>19</sup> Nevertheless, because urinalysis is regarded as relative non-invasive and offers testers a multi-day window for the detection of drug metabolites, and because rapid response point-of-collection-testing (POCT) immunoassay devices are available on the commercial market, "a number of states with *per se* 'zero tolerance' laws are currently using urine tests to enforce their laws under which the prosecutor must only show that the driver of the car had prohibited metabolites in his/her system."<sup>20</sup> Needless to say, "zero tolerance" DUID laws that rely solely on urine testing for THC metabolites will inappropriately target and define as "impaired" many otherwise sober marijuana consumers.

### BLOOD

Because blood collection is generally viewed by the courts as invasive and requires the use of medically trained personnel, its use in DUID cases is often seen as impractical. However, many European DUID laws rely on blood specimen collection. This is because, unlike urinalysis, both drug metabolites *and* parent drugs are readily detectable in the blood. In general, peak THC serum levels typically exceed 100 ng/ml minutes after drug ingestion and then fall rapidly. As a result, detection times for marijuana and other parent drugs in the blood at levels above 1 ng/ml is typically only a few hours after past use.<sup>21</sup> (Heavy cannabis users, however, may show residual THC serum levels of more than 2 ng/ml up to 48 hours after last use.<sup>22</sup> )

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<sup>18</sup> Yale Caplan. "Technology for Testing Drugs of Abuse in DUID." In: *Developing Global Strategies for Identifying, Prosecuting, and Treating Drug-Impaired Drivers*: Symposium Report. June 2004.

<sup>19</sup> See footnote 16.

<sup>20</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving*: FINAL REPORT.

<sup>21</sup> Ibid. Figure 3-1: Drug Detection Periods In Various Specimens; See also: Huestis et al. Relationship of (9)-tetrahydrocannabinol concentrations in oral fluid and plasma after controlled administration of smoked cannabis. *J Anal Toxicol*. September 2004: 394-399.

<sup>22</sup> See footnote 4.

Consequently, the Department of Transportation speculates, "In terms of attempting to link drug concentrations to behavioral impairment, blood is probably the specimen of choice."<sup>23</sup>

Nevertheless, scientists have not reached a consensus on the establishment of specific plasma concentrations that could be designated as evidence of driver impairment -- primarily because few adequate studies have been performed to date. Recently, a pair of scientific reviews of automobile crash culpability studies have indicated that THC levels in blood serum below 5 ng/ml are *not associated* with an elevated accident risk.<sup>24</sup> (Levels below 5 ng/ml are attained in recreational marijuana users, on average, within 1 to 3 hours after cannabis consumption.<sup>25</sup>) Moreover, some studies suggest that "even a THC serum level of between 5 and 10 ng/ml may not be associated with an above normal accident risk."<sup>26</sup> However, additional studies are necessary before reliable THC/blood threshold for impairment may be derived.

### SALIVA/ORAL FLUID

Saliva testing detects the presence of parent drugs only, and its detection times<sup>27</sup> are similar to blood (1-24 hours on average) for drugs other than cannabis. However, unlike other drugs, cannabinoids appear to be more difficult to detect in oral fluids, as only a minute amount of the drug is excreted into the saliva.<sup>28</sup> As a result, most current saliva testing technology appears to only detect the presence of cannabis for a

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<sup>23</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT*.

<sup>24</sup> Drummer et al. The involvement of drugs in drivers killed in Australian road traffic crashes. *Accid Anal Prev*. 2004: 239-248

<sup>25</sup> Huestis et al. Blood cannabinoids: Absorption of THC and formation of 11-OH-THC and THC-COOH during and after smoking marijuana. *J Anal Toxicol*. 1992: 276-282; See also: Papafotiou et al. An evaluation of the sensitivity of the Standardised Field Sobriety Tests (SFSTs) to detect impairment due to marijuana intoxication (Figure 1: Level of THC in plasma after smoking placebo, low- and high-dose cannabis cigarettes.) *Psychopharmacology*. 2004 [Epub ahead of print]

<sup>26</sup> Grotenhermen et al. Developing per se laws for driving under the influence of cannabis (DUIC). Paper presented at the 17th International Conference on Alcohol, Drugs and Traffic Safety. August 10, 2004.

<sup>27</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT*. Figure 3-1: Drug Detection Periods In Various Specimens; See also: Dolan et al. An overview of the use of hair, sweat and saliva to detect drug use. *Drug Alcohol Rev*. 2004: 213-217 and Verstraete. Detection times of drugs of abuse in blood, urine and oral fluid. *Ther Drug Monit*. 2004: 200-205.

<sup>28</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT*.



period of approximately one to two hours following drug ingestion.<sup>29</sup> (Note that newer, more sensitive oral screening technology utilizing lower cutoff levels have detected residual THC levels at 1-2 ng/ml some 4 to 8 hours after ingestion, long after any psychomotor impairment from the drug has subsided.<sup>30</sup> )

Because saliva testing is generally seen as non-invasive, and rapid response point-of-collection devices exist, it is viewed by some law enforcement organizations, in particular the European Police Traffic Network TISPOL<sup>31</sup>, as ideal for use by police on the side of the road. Yet, recent studies have shown considerable variation in results among test subjects. An ongoing pilot program in Victoria, Australia, utilizing road side oral screening technology has also yielded several false positives when used under roadside conditions.<sup>32</sup> In addition, there is no consensus on appropriate cutoff levels for the confirmation of drugs in saliva, nor are there any nationally established standards for oral fluid testing in traffic settings. As a result, many experts resolve that saliva testing is "unsuitable for reliable, ultimate determination of impairment by THC. Yet it [may] offer a suitable roadside screening tool for impairment, possibly followed by a blood test."<sup>33</sup>

In sum, recreational marijuana consumers face their greatest risks of being falsely defined as "impaired" in states with "zero tolerance" *per se* DUID laws reliant on urinalysis because this process currently detects only drug metabolites, not THC. Sober drivers are less likely to be identified as impaired by cannabis in states that rely on blood and/or saliva collection because the window of detection for parent drugs in these fluids is, by comparison, relatively narrow. In cases when parent drugs are detected, there is no general consensus regarding what concentration levels are indicative of impairment (though general estimates regarding the recency of drug ingestion may be ascertained). In a limited number of cases regarding the detection of marijuana in the blood serum, studies have preliminarily associated culpability and/or impairment at levels above

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<sup>29</sup> Spiehler et al. Analysis of Drugs in Saliva. In Goldberger et al: *On-Site Drug Testing*. Humana Press Inc. 2001.

<sup>30</sup> Niedbala et al. Detection of marijuana use by oral fluid and urine analysis following single-dose administration of smoked and oral marijuana. *J Anal Toxicol*. 2001: 289-303.

<sup>31</sup> TISPOL Press Release: Participation in Operational Testing of Drug Detection Devices by Manufacturers of Fluid Screening Devices. <http://www.tispol.org>

<sup>32</sup> *Herald Sun*. Roadside drug tests in turmoil. December 22, 2004.  
<http://www.heraldsun.news.com.au/printpage/0,5481,11756409,00.html>

<sup>33</sup> Grotenhermen and Leson. Testing for Impairment by Cannabis: A review of established and emerging approaches and methods. May 2004.

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5-10 ng/ml, but not below this threshold. However, the low number of available studies prevent scientists from deriving a reliable THC-blood threshold for impairment at this time.<sup>34</sup>

### HOW DANGEROUS IS "DRUGGED DRIVING" ANYWAY?

Though portrayed by politicians and police as a serious problem bordering on "epidemic," actual data is sparse concerning the prevalence of drugged driving, and more importantly, what role illicit drug use plays in traffic accidents.<sup>35</sup>

While it is well established that alcohol increases accident risk, evidence of marijuana's culpability in on-road driving accidents is less understood. Although marijuana intoxication has been shown to mildly impair psychomotor skills, this impairment does not appear to be severe or long lasting.<sup>36</sup> In driving simulator tests, this impairment is typically manifested by subjects decreasing their driving speed and requiring greater time to respond to emergency situations.<sup>37</sup>

This impairment *does not* appear to play a significant role in on-road traffic accidents when THC levels in a driver's blood are low and/or THC is not consumed in combination with alcohol. For example, a 1992 US National Highway Traffic Safety Administration review of fatally injured drivers found, "THC-only drivers [those with detectable levels of THC in their blood] had a responsibility rate below that of drug-free drivers."<sup>38</sup> A 1993 study conducted by the Institute of Human Psychopharmacology at the University of Maastricht (the Netherlands) evaluating cannabis' effects on actual driving performance found, "THC in single inhaled doses ... has significant, yet not dramatic, dose-related impairing effects on driving performance. ... THC's effects on road-

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<sup>34</sup> Grotenhermen et al. Developing Science-Based Per Se Limits for Driving Under the Influence of Cannabis: Findings and Recommendations by an Expert Panel. (FORTHCOMING)

<sup>35</sup> *Developing Global Strategies for Identifying, Prosecuting, and Treating Drug-Impaired Drivers*: Symposium Report. June 2004.

<sup>36</sup> Reviews include: David Hadorn. A review of cannabis and driving skills. In: Guy et al (Eds) *The Medicinal Uses of Cannabis and Cannabinoids*. London: Pharmaceutical Press. 2004: See specifically, "In conclusion, driving ability does not appear to be substantially impaired by cannabis." See also: Canadian Special Senate Committee on Illegal Drugs. *Cannabis: Our Position for a Canadian Public Policy*. 2002: See specifically Chapter 5: "Driving Under the Influence of Cannabis;" UK Department of Environment, Transport and the Regions (Road Safety Division). *Cannabis and Driving: A Review of the Literature and Commentary*. 2000; Allison Smiley. Marijuana: On-Road and Driving Simulator Studies. In: H. Kalant et al. (Eds) *The Health Effects of Cannabis*. Toronto: Center for Addiction and Mental Health. 1999: 173-191.

<sup>37</sup> Sexton et al. *The influence of cannabis on driving: A report prepared for the UK Department of the Environment, Transport and the Regions* (Road Safety Division). 2000; UK Department of Environment, Transport and the Regions (Road Safety Division). *Cannabis and Driving: A Review of the Literature and Commentary*; 2000; Allison Smiley. Marijuana: On-Road and Driving Simulator Studies.

<sup>38</sup> These findings are somewhat limited because only 4 percent of the drivers studied tested positive for THC in their blood. US Department of Transportation, National Highway Traffic Safety Administration. *The Incidence and Role of Drugs in Fatally Injured Drivers*: FINAL REPORT. October 1992.

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tracking ... never exceeded alcohol's at BACs of .08% and were in no way unusual compared to many medicinal drugs."<sup>39</sup>

A 2002 review of seven separate crash culpability studies involving 7,934 drivers reported, "Crash culpability studies [which attempt to correlate the responsibility of a driver for an accident to his or her consumption of a drug and the level of drug compound in his or her system] have failed to demonstrate that drivers with cannabinoids in the blood are significantly more likely than drug-free drivers to be culpable in road crashes."<sup>40</sup>

More recently, a 2004 scientific review of driver impairment and motor vehicle crashes suggested that "recent cannabis use may increase crash risk, whereas, past use of cannabis as determined by the presence of THC-COOH in drivers does not."<sup>41</sup> An additional review by Drummer and colleagues further suggested that higher THC blood levels -- particularly those above 5 ng/ml, indicating that the cannabis use had likely been within the past 1-3 hours -- may be correlated with an elevated accident risk, noting, "The odds ratio for THC concentrations of 5 ng/ml or higher [are] similar to those drivers with a BAC of at least 0.15%."<sup>42</sup> However, a meta-analysis by a German research team of 87 experimental studies on cannabis did not find such elevated impairment, suggesting "that a THC level in blood serum of 5ng/ml ... produces the same overall reduction in test performance as does a BAC of 0.5%."<sup>43</sup>

But, unlike with alcohol, the accident risk caused by cannabis -- particularly among those who are not acutely intoxicated -- appears limited because subjects under its influence are generally aware of their impairment and compensate to some extent, such as by slowing down and by focusing their attention when they know a

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<sup>39</sup> Hindrick Robbe. Marijuana's effects on actual driving performance. Institute for Human Psychopharmacology, University of Maastricht. 1993. <http://casr.adelaide.edu.au/T95/paper/s1p2.html>

<sup>40</sup> Cheshier et al. Cannabis and alcohol in motor vehicle accidents. In: Grotenhermen and Russo (Eds) *Cannabis and Cannabinoids: Pharmacology, Toxicology, and Therapeutic Potential*. New York: Haworth Press. 2002: 313-323.

<sup>41</sup> Ramaekers et al. Dose related risk of motor vehicle crashes after cannabis use. *Drug and Alcohol Dependence*. 2004: 109-119.

<sup>42</sup> "These findings are somewhat limited because only 3 percent of the drug-positive drivers found to be responsible for their crash tested positive for THC in their blood. By comparison, 58 percent tested positive for alcohol."

Drummer et al. The involvement of drugs in drivers killed in Australian road traffic crashes. (Also note: Hadorn and others warn that findings from retrospective studies must be interpreted with caution because of the "absence of an appropriate control group. Ideally, control blood samples would be obtained from 'random' drivers passing by the same locations at approximately the same time as the drivers involved in the collisions. However, for obvious logistical and ethical reasons this is never done. [Therefore,] ... studies relying on blood tests for cannabis cannot meaningfully assess the effects of cannabis on risk of collision 'given the absence of valid baseline data for cannabis detected in the non-involved population.'")

<sup>43</sup> Grotenhermen et al. Developing Science-Based Per Se Limits for Driving Under the Influence of Cannabis: Findings and Recommendations by an Expert Panel.

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response will be required.<sup>44</sup> This response is the opposite of that exhibited by drivers under the influence of alcohol, who tend to drive in a more risky manner proportional to their intoxication.<sup>45</sup>

To conclude, the quantitative role of cannabis consumption in on-road traffic accidents is, at this point, not well understood. Yet, from the available research, *it is apparent that cannabis' adverse on-road impact is hardly so great as to warrant the passage and enforcement of "zero tolerance" per se DUID legislation*, which would unavoidably classify many sober cannabis users as "impaired" and threaten them with criminal prosecution. A more sensible approach is to develop finite (i.e., non-zero) limits for THC in blood which could be used by law enforcement as an indicator of recent consumption and possibly impairment by cannabis.

### WHO'S BEHIND THE "ZERO TOLERANCE" CAMPAIGN?

Over the past five years, a small cabal of prohibitionists, police, drug testing proponents and toxicologists have lobbied for legislation criminalizing drivers who operate a vehicle with any detectable level of drug metabolites present in their system. Among them, two individuals are most prominent. The first is Michael Walsh, head of the Walsh Group,<sup>46</sup> a federally funded organization that develops drug testing technology and lobbies for rigid workplace drug testing programs. Walsh is the former Director of the Division of Applied Research at the US National Institute on Drug Abuse (NIDA), and formerly served as the Associate Director to the Drug Czar.

Michael Walsh has been the impetus and the point man behind the US push toward state "zero tolerance" DUID legislation for some time. In November 2002, the Walsh Group partnered with the ONDCP to lobby state legislatures to replace their effect-based DUID laws with "zero tolerance" *per se* legislation. Then, at a joint ONDCP/NIDA conference held in February of 2004, Walsh pronounced, "There is clearly a need for national leadership at the federal level to develop model statutes and to strongly encourage the states to modify their laws." Two weeks later, legislators in Congress began debating legislation to mandate states do just that. Today, the Walsh Group remains the primary lobby and educational organization on DUID-related information, working in concert with the Drug Czar's office to promote "zero tolerance" DUID legislation.

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<sup>44</sup> Ibid; See also Allison Smiley. Marijuana: On-Road and Driving Simulator Studies

<sup>45</sup> Ibid; See also United Kingdom's Advisory Council on the Misuse of Drugs. *The Classification of Cannabis Under the Misuse of Drugs Act of 1971*. 2002: See specifically: Chapter 4, Section 4.3.5: "Cannabis differs from alcohol; ... it seems not to increase risk-taking behavior. This may explain why it appears to play a smaller role than alcohol in road traffic accidents."

<sup>46</sup> <http://www.walshgroup.org>

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The second leading proponent of the enactment of "zero tolerance" DUID legislation is former 1970s Drug Czar Robert DuPont -- another ex-NIDA director who now helms the workplace drug testing consultation firm Bensingler, Dupont & Associates.<sup>47</sup> Over the past two decades, Dupont has been a key player in the development and enactment of workplace drug testing guidelines, including the federal regulations that govern the testing of federally licensed drivers.<sup>48</sup> Dupont is now lobbying to expand these federal guidelines to apply to all motorists. He also favors the establishment of random, roadside drug testing checkpoints.<sup>49</sup> "We must move away from the concept of you can't drive impaired by drugs to you can't drive on drugs at all," he says, noting that drivers who test positive for drug metabolites but are otherwise unimpaired should be stripped of their license and then be monitored through regularly scheduled drug tests, including hair testing, for a period of two to five years.<sup>50</sup> "Most people don't need [drug] treatment, they need a reason not to use drugs," and the enforcement of "zero tolerance" DUID legislation gives them that incentive, he believes.<sup>51</sup>

By comparison, most toxicologists and researchers in the scientific community do not favor "zero tolerance" *per se* DUID laws, and back the enactment of rational, science-based limits for THC.<sup>52</sup>

### HOW TO COMBAT "ZERO TOLERANCE" DUID LEGISLATION

From a legislative standpoint, it is vital that opponents of "zero tolerance" *per se* legislation express to politicians the fact that they strongly support the goal of keeping impaired drivers off the road -- regardless of whether the driver is impaired from alcohol or other drugs. In practice, however, "zero tolerance" DUID laws do little to meet this goal. Rather, they attempt to misuse the traffic safety laws in order to identify and prosecute recreational drug users *per se* by inappropriately defining sober drivers who present no traffic safety risk as legally impaired. Moreover, they eliminate any incentive for cannabis users to curb their use prior to driving, as the law fails to differentiate between an offender who may have consumed marijuana within the past hour versus one who may have consumed marijuana several days earlier.

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<sup>47</sup> <http://www.bensingerdupont.com>

<sup>48</sup> These guidelines subject licensed commercial drivers to submit to random urinalysis for the purpose of screening for illicit drug metabolites. These regulations also establish *per se* guidelines for drug metabolites, although these cutoff levels are admittedly not correlated to impairment.

<sup>49</sup> Robert Dupont. "Drugs and driving." Letter to the editor: *USA Today*. October 28, 2004.

<sup>50</sup> Robert Dupont. "Conviction is an Opportunity for Intervention." In: *Developing Global Strategies for Identifying, Prosecuting, and Treating Drug-Impaired Drivers*: Symposium Report. June 2004.

<sup>51</sup> *Ibid.*

<sup>52</sup> Grotenhermen et al. Developing Science-Based Per Se Limits for Driving Under the Influence of Cannabis: Findings and Recommendations by an Expert Panel.

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By comparing "zero tolerance" DUID laws to existing state laws prohibiting drunk driving, their intellectual dishonesty becomes even more apparent. Do drunk driving laws punish drivers for simply consuming alcohol? No. They sanction drivers who are impaired by alcohol to the point that they are no longer safe to operate a motor vehicle. Why not apply this same standard to DUID legislation? Do drunk driving laws target drivers for having previously consumed alcohol some days or weeks earlier? Of course not. They sanction drivers for present intoxication, and only if that intoxication is presently affecting their driving performance. Again, why not apply this same common-sense standard to DUID legislation? Do drunk driving laws set their *per se* levels at zero? No, they employ scientifically sound cutoff levels that can be correlated to impairment of performance. Once again, why not apply this same standard to DUID laws?

At a minimum, state DUID laws should identify parent drugs, not simply inactive drug metabolites. Further, these laws must employ scientifically sound cutoff levels that correlate drug concentration to impairment of performance, similar to the 0.08% BAC standard that now exists for drunk driving in most states. While existing data in this realm is limited, preliminary findings suggest that THC-blood levels above 5ng/ml may be associated with impairment and an increased accident risk, but that THC-blood levels below this threshold are not. In addition, there must also be assurances that these laws mandate any and all drug testing to be performed and confirmed by accredited state labs using uniform procedures and standards. Lastly, DUID legislation should strictly define who can be tested and under what circumstances. Invasive testing methods, such as blood screening, should not be allowed unless observed impairment has been determined and an arrest has been made. Such measures, if enacted by the states, would be a reasonable alternative to unsound "zero tolerance" drugged driving legislation.

### I FOUGHT THE LAW AND THE LAW WON

Finally, for those who reside in a state that has already enacted zero tolerance DUID legislation, below are some suggestions on challenging the law's enforcement.

- 1) Epidemiological data is lacking on the number of people who drive under the influence of controlled substances, as is any objective evidence that "zero tolerance" DUID laws have a deterrent effect on drivers or have led to a reduction in the number of motorists driving under the influence of drugs. In addition, according the

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Department of Transportation, "The role of drugs as a causal factor in traffic crashes involving drug-positive drivers is still not understood."<sup>53</sup>

2) Because of the limited evidence from epidemiological studies, there exists no scientific consensus on appropriate cutoff levels for detecting the presence of drugs and/or drug metabolites in bodily fluids other than urine (and in this case, the standardized cutoffs are not linked to impairment). In particular, oral fluid assays for most drugs of abuse are still in developmental stages. As a result, "There are no nationally established standard methods for oral fluid drug testing, nor are there any certification programs currently available" to validate the accuracy of the test result.<sup>54</sup>

3) Most importantly, there exists no scientific standards correlating drug concentration to impairment of performance. There exists no known dose concentration relationship correlating drug metabolite levels in the urine or blood to impairment, nor does there exist a consensus regarding at what concentration levels the detection of a parent drug in the blood or saliva is associated with driver impairment.

4) Current DUID laws seldom define who can be tested and under what circumstances. Drug testing, particularly blood testing, is an invasive practice that should not be performed unless a police officer or Drug Recognition Expert has first established that a driver is impaired by a substance other than alcohol, and has been placed under arrest.

5) All positive test results must be confirmed at an accredited lab for accuracy. However, most legislatures fail to appropriate funding for confirmation testing, or allow for the establishment of accredited labs to perform this testing. Non-accredited labs may use cutoff standards that vary from the national guidelines, thus bringing the accuracy of their test results into question.

6) Finally, if the presence of illicit drugs or drug metabolites were detected through the use of a rapid point-of-collection-testing (POCT) immunoassay devices (This would only apply to urine and oral collection devices.), then confirmation testing by a blood test in a toxicology lab is required, as is independent verification of the initial result. (Studies have found that police officers are more likely than trained lab technicians to make "human errors" using POCT devices and interpreting the results.) Lastly, most POCT technology is not FDA approved, and thus, appears open to legal challenges.

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<sup>53</sup> US Department of Transportation, National Highway Traffic Safety Administration. *State of Knowledge of Drug-Impaired Driving: FINAL REPORT*.

<sup>54</sup> Ibid.