



## Drug Evaluation and Classification Program

### Key Considerations

- The Drug Evaluation and Classification Program (DECP) is a 12-step systematic, standardized procedure widely used throughout the United States and Canada to assess suspected drug-impaired drivers.
- The DECP protocol provides a valid, reliable assessment of impairment as a result of drug use and is a critical element in efforts to help counter the number of drivers on the roads who are adversely affected by drugs.
- There is an ongoing need to train all patrol officers to recognize the common signs and symptoms of drug use to increase the overall capacity to identify drivers whose driving is adversely affected by drugs.
- The driving public and young drivers in particular need to know that the police can require a driver to submit to evaluation by a Drug Recognition Evaluator (DRE), which includes a requirement to provide a sample of urine, blood or oral fluid for analysis.
- Oral fluid drug screening equipment and drug per se laws will not eliminate the need for the DECP.

### The Issue

Amendments to Canada's drug-impaired driving laws were implemented in 2008 to assist police in the detection of drug-impaired drivers. A key feature of these amendments was the introduction of the Drug Evaluation and Classification Program (DECP). This brief provides information about the DECP, its role in the enforcement of drug-impaired driving, and some of the issues that could improve the efficiency and effectiveness of the program and help reduce crashes that are a result of drug-impaired driving.

### Background

Driving under the influence of drugs has a long legal history in Canada. In 1925, it became a criminal offence to drive "under the influence of a narcotic." In 1951, the offence was changed to "driving while impaired by alcohol or any drug." But whereas establishing impairment as a result of the consumption of alcohol was assisted by extensive research on the effects of alcohol and the subsequent introduction in 1969 of evidential breath testing to determine blood alcohol concentration, comparable developments on impairment by drugs and drug testing have been considerably more challenging.



Almost four decades after the introduction of the breathalyzer, the DECP was added to the *Criminal Code* of Canada in 2008 to facilitate the enforcement of drug-impaired driving legislation. The amendments gave police the authority to demand that a driver suspected of being impaired by a drug submit to an evaluation by a Drug Recognition Expert<sup>1</sup> (DRE), an officer trained and certified to administer the DECP. On the basis of the evaluation, the officer can demand the suspect provide a sample of blood, urine or oral fluid for analysis of drug content. The purpose of these amendments was to enhance the detection and prosecution of drug-impaired drivers.

The DECP originated in Los Angeles in the 1970s. At that time, police officers were routinely arresting drivers who showed gross signs of impairment but were not under the influence of alcohol. Field tests of impairment were combined with accepted medical knowledge of drug effects to devise a systematic and standardized procedure to detect driver impairment as a result of the use of drugs. The resultant 12-step protocol involves a series of psychophysical tests (e.g., walk and turn, finger to nose), eye examinations (e.g., pupil size, presence of nystagmus or the involuntary jerking of the eyes), a breath alcohol test, measures of temperature, blood pressure and pulse, interviews and other observations. Following the evaluation, the DRE forms an opinion about the suspect's ability to operate a vehicle safely and which of seven classes of drugs is most likely responsible for the impairment (see sidebar). The final step of the evaluation is a demand for the suspect to provide a sample of blood, urine or oral fluid for analysis of drug content. Toxicological evidence of the use of a class of drugs consistent with the signs and symptoms observed by the DRE is an important piece of evidence required to link the observed signs and symptoms of impairment to the use of the specified category of drug.

Training in the DECP requires successful completion of an intensive two-week program, followed by a written examination and the completion of 12 drug evaluations. Officers who meet the requirements are certified as DREs by the International Association of Chiefs of Police. Continuing education and completion of at least four evaluations every two years are required to maintain certification.

## What the Evidence Says

Although based on known signs and symptoms of drug use, it is essential to demonstrate the extent to which the 12-step assessment procedure provides a valid, reliable and accurate means by which to identify persons who are impaired by different categories of psychoactive drugs. Both laboratory and field studies have examined the accuracy of evaluations conducted by police officers trained in the DECP.

A small number of laboratory studies have measured the effectiveness of the DECP. These studies involved the administration of a set dose of a common drug (e.g., amphetamine, marijuana, diazepam, cocaine, codeine) to volunteers who were subsequently examined by experienced DREs (Bigelow, Bickel, Roache, Liebson, & Nowowieski, 1985; Heishman, Singleton, & Crouch, 1996, 1998). In general, the results showed that officers were able to detect impairment and identify impairment

### Drug Categories

- Central nervous system (CNS) depressants (sedatives, hypnotics)
- Inhalants (paint thinner, glue, nitrous oxide)
- Dissociative anesthetics (PCP, ketamine)
- Cannabis (marijuana, hashish)
- CNS stimulants (cocaine, methamphetamine)
- Hallucinogens (LSD, ecstasy, peyote)
- Narcotic analgesics (oxycodone, heroin, morphine)

<sup>1</sup> Also referred to as a Drug Recognition Evaluator.



associated with the class of drugs administered with a modest degree of accuracy (43% to 62%). A review of these studies noted that in many cases subjects were assessed as not being impaired (Beirness, LeCavalier & Singhal, 2007). This assessment was likely the result of the relatively low doses of drugs administered. In addition, the time available for the evaluation was limited, not all 12 steps were included, and DREs were often instructed to indicate a drug class even if they were not as confident about their judgment as they would normally be in an actual field situation.

Although not as scientifically rigorous as experimental studies, field enforcement studies benefit from using evaluations of suspected drug-impaired drivers performed under real-world enforcement conditions. In these studies, the category of drug identified by the evaluating officer is compared with the drug category identified through toxicological analysis of a bodily fluid sample. A review of these studies found that DREs accurately identified the category of drug or drugs responsible for the observed impairment 75% to 90% of the time (Beirness et al., 2007).

The only Canadian study to assess the accuracy of the DECP examined 1,349 drug influence evaluations and the results of toxicological tests to determine drug use. In 94.8% of cases, the drug category identified by the evaluating officer matched the drug category identified by toxicological analysis (Beirness, Beasley, & LeCavalier, 2009).

The reliability of DRE evaluations — that is, the extent to which different officers would come to the same conclusion about the category of drug used if they were to evaluate the same subject — has also been assessed (Beirness, Beasley, & LeCavalier, 2008). For this study, a random sample of certified DREs were each sent the same set of 23 completed drug influence evaluation forms from existing police cases. All identifying information and the original DRE's opinion about drug category were removed. Overall agreement among DREs on the category of drugs used was 71.2%, indicating that if the same individual was evaluated by 10 different DREs, seven would come to the same conclusion about the category of drug used. Given the restricted information provided to the DREs participating in the study, the rate of agreement among officers was considered a conservative estimate of reliability.

Recent studies have also examined the predictive value of the signs and symptoms assessed as part of a DRE evaluation (Porath-Waller, Beirness, & Beasley, 2009; Porath-Waller & Beirness, 2010; Porath & Beirness, 2019). These studies determined that a combination of clinical and psychophysical indicators included in the DECP evaluation was able to distinguish among and accurately predict the drug categories and drug combinations examined, thereby providing evidence of the value of the tests that comprise the DECP.

Together, the research provides strong evidence that the signs and symptoms assessed using the 12-step DECP provide a valid and reliable evaluation of impairment as a result of drug use.

## Current Status in Canada

Statistics Canada reported that there were 70,400 impaired driving incidents in 2018, of which 4,423 (6.3%) were related to drugs (Moreau, 2019). Given that 10% of nighttime drivers test positive for drug use (Beirness 2019) and that the percentage of driver fatalities involving drugs (43.7%) has been shown to exceed that involving alcohol (27.5%) (Woodall, Chow, Lauwers, & Cass, 2015), it would appear that a substantial proportion of drug-impaired drivers are going undetected.

Since the 2008 amendments to the *Criminal Code*, one of the major challenges to the DECP has been training a sufficient number of officers across Canada to conduct evaluations of drivers suspected of being impaired by drugs. The training and certification program is intensive, demanding,



and requires commitment and dedication. Training also involves considerable expense, not the least of which is the loss of officers from active duty for the duration of training.

There are currently 1,221 certified DREs in Canada.<sup>2</sup> A needs assessment conducted in 2009 estimated that Canada requires between 1,800 and 2,000 DREs. This estimate was based on the experience with the DRE program in the United States, where it was determined that the optimum number of DREs in a state was about 6 per 100,000 population or about 3% of all police officers (LeCavalier & Beirness, 2009).

Another challenge has been acceptance of DECP evidence by the courts. Whereas the substantial body of evidence relating alcohol impairment to a breath alcohol reading of 80 mg/dL or over has served to set a clear standard that is well accepted, the same degree of confidence has yet to be established for cases of impaired driving involving drugs. However, in February 2017, the Supreme Court of Canada ruled that a DRE's opinion could be admitted as expert evidence without first submitting to an examination of the DRE's qualification and a preliminary examination of the evidence (*R. v. Bingley*, 2017). Recent amendments to the *Criminal Code* reflect this Supreme Court ruling and clearly state that the opinion of the evaluating officer is admissible in evidence without qualifying the evaluating officer as an expert.

Part of the challenge in proving drug-impaired driving pertains to the evidence of drug use. The final step in the DECP protocol is the collection of a sample of bodily fluid that is sent to a forensic toxicology laboratory for analysis of drug content. The purpose of the toxicological analysis of the sample is to confirm that the subject has consumed a substance within the drug category deemed by the evaluating officer to have caused the observed impairment. In Canada, it is common practice to collect a urine sample to send to the laboratory for analysis. Urine samples provide evidence of drug use, but in some cases, metabolites of certain drugs can be detected in urine for several days after use. The persistence of metabolites can raise questions about whether the substance detected was actually responsible for the impairment observed.

Blood is the preferred medium for evaluating the presence and concentration of drugs in the body. The time between the arrest and the blood draw can have a substantial impact on the drug level. Contributing to the delay was the fact that blood samples had to be drawn under the supervision of a qualified medical practitioner, often at a hospital. Recent amendments to the *Criminal Code*, however, now allow blood samples to be drawn by a person designated as a qualified technician. This amendment should facilitate the collection of blood samples in timely manner.

## What Other Countries Are Doing

In the United States, the National Highway Traffic Safety Administration provides support to the International Association of Chiefs of Police to manage the DECP. All 50 states have an active DECP. In 2018, there were 9,116 certified DREs in the U.S. who collectively recorded 31,247 enforcement evaluations (International Association of Chiefs of Police, 2019). Police officers from other countries (e.g., United Kingdom, Germany, Australia, China, Guam and Hong Kong) have attended the DRE training course, but none of these countries has a formal DECP.

---

<sup>2</sup> As of January 2020. Personal communication, National DRE Program, January 14, 2020. The number of certified DREs fluctuates as a result of ongoing training, retirements, promotions and transfers.



## **Options for Improvement**

### ***Training and Certification***

The legalization and regulation of cannabis for non-medical purposes requires a full complement of certified DREs to provide a strong enforcement presence to deter individuals from driving after using cannabis and to deal effectively with those who do. Training, certification and continuing education, as well as operational and administrative functions, require stable national and provincial/territorial funding at a level consistent with the magnitude of the problem and sufficient to substantially improve the safety of all Canadians.

Not all police officers need to be trained as DREs. At the very least, however, there should be a DRE available at all times to conduct evaluations. In addition, all patrol officers should be able to recognize the signs and symptoms of drug use and conduct a Standardized Field Sobriety Test to assess driver impairment at roadside (Porath-Waller & Beirness, 2014). A brief training program on drugs and their effects can facilitate the identification of potential drug-impaired drivers who can then be referred to a DRE for a more formal evaluation. According to the International Association of Chiefs of Police, U.S. states that have implemented advanced drug-driving detection training have greatly increased the number of DRE evaluations conducted and drug-impaired driving charges laid (International Association of Chiefs of Police, 2014). A similar program in Canada, known as Drugs that Impair, is available for officers to enhance their skills in identifying potential drug-impaired drivers who can then be assessed by a certified DRE.

### ***Toxicology***

Toxicology is a critical element in the enforcement and adjudication of drug-impaired driving. Determining the type of substances affecting driver performance requires a sample of body fluid (preferably blood) as close to the time of driving as possible. The capacity of toxicology laboratories needs to keep pace with the rising number of drug-impaired driving cases. Toxicologists not only conduct the analysis of samples, but often are required to interpret their findings in court. Testifying in court can place tremendous demands on resources. Toxicology laboratories require support to increase their capacity to handle the workload created by the volume of samples and the demands for expert testimony in court.

### ***Crown and Judiciary Education***

Drug-impaired driving cases can present a number of challenges. Prosecutors and the judiciary may be unfamiliar with the types of evidence presented in these cases (e.g., DECP evaluations, toxicology results) and the types of impairment induced by different categories of drugs. Continuing educational programs developed and presented by experts in the field would serve to enhance understanding of the numerous issues and facilitate the adjudication of cases.

### ***Public Awareness and Education***

Drivers, especially young drivers, need to be aware that many types of drugs (illicit, prescription and over-the-counter) can impair one's ability to operate a vehicle safely and that police have the authority and the tools (including the DECP) to assist in the detection of drug-impaired drivers. Drivers also need to understand that the nature of drug impairment can differ substantially from that caused by alcohol. Special targeted communications and public education efforts using social media and other tools should be undertaken to enhance awareness among high-risk groups.



## References

- Beirness, D.J. (2019). *A compilation of jurisdictional roadside surveys conducted prior to cannabis legalization*. Ottawa, Ont.: Canadian Council of Motor Transport Administrators.
- Beirness, D.J., Beasley, E.E., & LeCavalier, J. (2008). The accuracy and reliability of DRE evaluations in Canada. Paper presented at the 18<sup>th</sup> Canadian Multidisciplinary Road Safety Conference, Whistler, B.C.
- Beirness, D.J., Beasley, E.E., & LeCavalier, J. (2009). The accuracy of evaluations by Drug Recognition Experts in Canada. *Canadian Society of Forensic Sciences Journal*, 42(1), 75–79.
- Beirness, D.J., LeCavalier, J., & Singhal, D. (2007). Evaluation of the Drug Evaluation and Classification Program. A critical review of the evidence. *Traffic Injury Prevention*, 8(4), 368–376.
- Bigelow, G.E., Bickel, W.E., Roache, J.D., Liebson, I.A., & Nowowieski P. (1985). *Identifying types of drug intoxication: Laboratory evaluation of the subject examination procedure*. DOT HS 806 753. Washington, DC: National Highway Traffic Safety Administration.
- Heishman, S.J., Singleton, E.G., & Crouch, D.J. (1996). Laboratory validation study of Drug Evaluation and Classification Program: Ethanol, cocaine, and marijuana. *Journal of Analytical Toxicology*, 20, 468–483.
- Heishman, S.J., Singleton, E.G., & Crouch, D.J. (1998). Laboratory validation study of Drug Evaluation and Classification Program: Alprazolam, d-amphetamine, codeine, and marijuana. *Journal of Analytical Toxicology*, 22, 503–514.
- International Association of Chiefs of Police. (2014). *The 2013 Annual Report of the IACP Drug Recognition Section*. Alexandria, VA: Author.
- International Association of Chiefs of Police. (2019). *The 2018 Annual Report of the IACP Drug Recognition Section*. Alexandria, VA: Author.
- LeCavalier, J.G., & Beirness, D.J. (2009). *DRE needs assessment model*. Ottawa, Ont.: Canadian Centre on Substance Abuse.
- Moreau, G. (2019). Police-reported crime statistics in Canada, 2018. *Juristat*, Statistics Canada catalogue no. 85-002-x. Ottawa, Ont.: Canadian Centre for Justice Statistics, Statistics Canada.
- Porath, A.J. & Beirness, D.J. (2019). Predicting categories of drugs used by suspected drug-impaired drivers using the Drug Evaluation and Classification Program tests. *Traffic Injury Prevention*, 20(3), 255–263.
- Porath-Waller, A.J. & Beirness, D.J. (2014). An examination of the validity of the Standardized Field Sobriety Tests in detecting drug impairment using data from the Drug Evaluation and Classification Program. *Traffic Injury Prevention*, 15, 125–131.
- Porath-Waller, A.J., & Beirness, D.J. (2010). Simplifying the process for identifying drug combinations by Drug Recognition Experts. *Traffic Injury Prevention*, 11, 453–459.
- Porath-Waller, A.J., Beirness, D.J., & Beasley, E.E. (2009). Toward a more parsimonious approach to Drug Recognition Expert evaluations. *Traffic Injury Prevention*, 10, 513–518.
- R. v. Bingley, 2017 SCC 12, 170 (2017).
- Woodall, K.L., Chow, B.L.C., Lauwers, A., & Cass, D. (2015). Toxicological findings in fatal motor vehicle collisions in Ontario, Canada: A one-year study. *Journal of Forensic Sciences*, 60, 669–674.



---

ISBN 978-1-77178-623-2

© Canadian Centre on Substance Use and Addiction 2020



Canadian Centre  
on Substance Use  
and Addiction

CCSA was created by Parliament to provide national leadership to address substance use in Canada. A trusted counsel, we provide national guidance to decision makers by harnessing the power of research, curating knowledge and bringing together diverse perspectives.

CCSA activities and products are made possible through a financial contribution from Health Canada. The views of CCSA do not necessarily represent the views of the Government of Canada.