



Countermeasures That Work – Drug-Impaired Driving

The National Highway Traffic Safety Administration has published its 10th edition of *Countermeasures That Work*, a basic reference to assist State Highway Safety Offices and other highway safety professionals in selecting effective, evidence-based countermeasures for traffic safety problems. This Traffic Tech highlights the effective drug-impaired-driving countermeasures from Chapter 1, Alcohol- and Drug-Impaired Driving.

Background

Driving while impaired by alcohol and other drugs remains one of the largest contributors to road crashes. Despite significant progress around the world, alcohol-impaired drivers remain a continual issue, and there is increased concern about drug-positive drivers. We have strong foundational work related to alcohol-impaired driving and are working toward the same with drugs, especially cannabis (Compton, 2017). It is important to produce research that helps us understand the impact of drugs, illegal or legal, on driving-related skills; prevalence of drug use by drivers; crash risk, detection strategies, and countermeasures to decrease impaired driving.

Some of the challenges in studying, measuring, and creating countermeasures to address drug-impaired driving include the following:

- There is a wide range of drugs, both licit and illicit, that can potentially impair driving.
- Although the relationship between blood alcohol concentration (BAC) and driving impairment is clear and well-documented, the relationship between levels of drugs and driving impairment has not been established.
- Alcohol leaves the body in a predictable pattern, whereas other drugs are eliminated at differing rates; for example, blood levels of certain drugs can accumulate with repeated administrations and be detected well after impairment has ceased.
- It is not unusual for drivers to take more than one impairing drug at the same time or to combine drugs with alcohol.
- Alcohol can be measured reliably through blood and breath tests, but other types of drugs can only be mea-

sured through more intrusive tests of bodily fluids such as urine or saliva.

- Improvements to the quality and quantity of drug-impaired driving data are still in the initial stages of development.
- Countermeasures for addressing potential driving impairments from prescription and over-the-counter drugs may need to be different from countermeasures for alcohol- and illicit drug-impaired driving.

Key Factors of Drug-Impaired Driving Countermeasures

Compton et al. (2009) described four basic issues that must be addressed to better understand the extent of the problem of drug-impaired driving:

- What drugs impair driving ability?
- What drug dose levels are associated with impaired driving?
- How frequently are impairing drugs being used by drivers?
- What drugs are associated with higher crash rates?

There are still sizeable gaps in our understanding of the effects of drugs on driving. The one consistent finding across studies is that the risk of driver impairment increases when drugs are combined with alcohol.

The following sections discuss behavioral countermeasures for drug-impaired driving that have been supported by research as consistently effective across situations (★★★★★), effective in certain situations (★★★★), or promising/likely effective (★★★). For more information on these countermeasures, their effectiveness, cost, use, and time to implement, see the full Countermeasures report.

Enforcement of Drug-Impaired Driving

Countermeasure	Effectiveness	Cost	Use	Time
7.1 Enforcement of Drug-Impaired Driving	★★★	\$\$	Unknown	Short

Enforcement of drug-impaired-driving laws can be difficult. Typically, drug-impaired driving is only inves-

tigated when a driver is obviously impaired but the driver's BAC is low. If drivers have BACs over the illegal limit, many officers and prosecutors do not probe for drugs, as drug-impaired driving carries no additional penalties in many States.

Although several devices are available that allow officers to screen suspects for illegal drug use at point-of-contact, the accuracy of these devices is still being determined. Therefore, in this area, training law enforcement officers to detect and recognize impairment has been the focus of countermeasures.

Training for law enforcement officers is available in three increasingly detailed levels. Standard Field Sobriety Test (SFST) training is the building block all impaired driving courses. NHTSA developed a first-level, 8-hour course, *Drugs That Impair Driving*, to provide a general description of drugs, signs that may indicate drug use, and medical conditions that show signs similar to drug use.

A second-level course, the 16-hour *Advanced Roadside Impaired Driving Enforcement Program* (ARIDE), is designed to give officers the ability to apply information they have learned in the course to make effective arrests based on probable cause that provides the necessary evidence for prosecution. The program seeks to increase the officer's overall knowledge of the general manifestations of alcohol and drug impairment and to increase their ability to recognize these indicators in the drivers they encounter during their enforcement duties.

The highest level of training comes in the form of the *Drug Evaluation and Classification* (DEC) program that is designed to train officers to become Drug Recognition Experts/Evaluators (DREs). In part, the training focuses on identifying the signs and symptoms of drug use to determine whether a suspected impaired driver was impaired by drugs and to rule out other possible causes. Officers are then capable of making determinations about which drug category (or categories) may be contributing to a driver's inability to safely operate a vehicle.

To date, there have been no studies examining the effectiveness of enforcement in reducing drug-impaired driving or crashes; however, the training may be similarly as effective as alcohol-impaired-driving enforcement.

Costs—As with other enforcement strategies, the primary costs are for law enforcement time and training. The time to conduct a DRE evaluation of a driver is typically 45 minutes to an hour.

Time to implement—Drug-impaired-driving enforcement can be integrated into other enforcement activities within 3 months, depending on the time and length of training. DRE training consists of 9 days of classroom instruction, and DRE candidates are also required to perform supervised field evaluations to become certified.

Conclusion

Similar to alcohol-impaired driving, drug-impaired driving is primarily addressed through a combination of laws, enforcement, and education. Relatively few countermeasures have been developed to specifically address drug-impaired driving, and there has been little evaluation of drug-impaired-driving countermeasures overall.

References

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