



Drug-Impaired Driving in Canada Educator Toolkit

Facts about Drug-Impaired Driving

Drugs increase crash risk

- Drivers who have used marijuana are at an increased risk of getting into a motor vehicle collision. The crash rate of cannabis users is from two to six times more often than drivers who are not impaired, the different rates are due to how much and how often drivers have smoked cannabis (Stewart, 2006; Asbridge et al., 2012).
- Studies of traffic crashes reveal that drivers who test positive for the use of sedatives are up to two to eight times more likely than alcohol- and drug-free drivers to be involved in a fatal traffic crash (Drummer, 1995; Gjerde et al., 2011).
- Drivers who test positive for the use of opioids are up to eight times more likely to be involved in a traffic crash (Mura et al., 2003).
- Drivers who are impaired by cocaine are two to ten times more likely to be involved in a crash (DRUID, 2012).
- Drivers who recently started taking benzodiazepine (e.g., sleep aids or downers) are two to five times more likely to be involved in a crash than drivers who are not impaired (Drummer, 1995; Stewart, 2006; Dassanayake et al., 2011).

Marijuana is used more often before driving than any other drug, in some cases exceeding alcohol

- A recent Ontario study revealed that marijuana was the most common illicit drug present among drivers in a fatal motor vehicle collision (Woodall, Chow, Lauwers, & Cass, 2015).
- Data from a recent roadside survey in Ontario revealed that marijuana was the most common illegal drug present among young drivers (Beirness, Beasley, & McClafferty, 2015).
- More young drivers in Ontario drive after using marijuana than after drinking alcohol (Boak, Hamilton, Adlaf, & Mann, 2015).
- In 2011, 12.6% of young Canadians aged 15–24 admitted to driving after taking marijuana but 10.7% reported driving after drinking (Health Canada, 2012).



Youth are driving after they use drugs and riding with impaired drivers

- In Ontario 17% of drivers in grades 10 to 12 reported that within the past 12 months they had driven within one hour of using cannabis at least once (Paglia-Boak, Mann, Adlaf, & Rehm, 2009).
- Between 2008 and 2010, surveys of nighttime drivers in British Columbia found that among drivers aged 16–24:
 - 1.1% tested positive for opioids;
 - 3.6% tested positive for cocaine, amphetamine or methamphetamine; and
 - 6.4% tested positive for cannabis.
- In 2011, 21% of high school students who were surveyed said they had driven at least once within an hour of using drugs. When they were asked if they had ever been a passenger in a vehicle in which the driver had used drugs, 50% answered yes (Young et al., 2011).
- Riding with a driver who has used drugs or alcohol can lead to consequences just as tragic as driving while impaired.

A number of drivers who died in crashes had drugs in their system

- Overall, among all drivers killed in motor vehicle crashes in Canada between 2000 and 2010:
 - 5.5% tested positive for opioids;
 - 8.5% tested positive for stimulants;
 - 11.2% tested positive for sedatives; and
 - 16.4% tested positive for cannabis.
- In 2010, nearly as many drivers died in road crashes after using drugs (34.2%) as those who had been drinking (39.1%).



References

- Asbridge, M., Hayden, J.A., & Cartwright, J.L. (2012). Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis. *British Medical Journal*, 344, e536.
- Beirness, D.J., Beasley, E.E., & McClafferty, K. (2015). *The 2014 Ontario Roadside Alcohol and Drug Survey*. Presentation at the Drugs and Driving Symposium, Centre for Forensic Science, Toronto, Ont., June 2015.
- Boak, A., Hamilton, H. A., Adlaf, E. M., & Mann, R. E., (2015). *Drug use among Ontario students, 1977–2015: Detailed OSDUHS findings* (CAMH Research Document Series No. 41). Toronto, Ont.: Centre for Addiction and Mental Health.
- Dassanayake, T., Michie, P. Carter, G., & Jones, A. (2011). Effects of benzodiazepines, antidepressants and opioids on driving: a systematic review and meta-analysis of epidemiological and experimental evidence drug safety. *Drug Safety*, 34(2), 125–156.
- DRUID (Driving Under the Influence of Drugs, Alcohol and Medicines). (2012). *Summary of Main DRUID Results*. Paper presented at TRB 91st Annual Meeting. Washington, DC.
- Drummer O. (1995). Drugs and accident risk in fatally-injured drivers. Paper presented at the 17th International Conference on Alcohol, Drugs and Traffic Safety, Adelaide, Australia.
- Gjerde, H., Normann, P.T., Christophersen, A.S., Samuelsen, S.O., & Mørland, J. (2011). Alcohol, psychoactive drugs and fatal road traffic accidents in Norway: a case-control study. *Accident Analysis & Prevention*, 43(3), 1197–1203.
- Health Canada. (2012). *Canadian Alcohol and Drug Use Monitoring Survey (CADUMS): Summary of results for 2011*. Ottawa, Ont.: Author.
- Mura, P., Kintz, P., Ludes, B., Gaulier, J.M., Marquet, P., Martin-Dupont, S., ... Pourrat, O., 2003. Comparison of the prevalence of alcohol, cannabis and other drugs between 900 injured drivers and 900 control subjects: results of a French collaborative study. *Forensic Science International*. 133(1–2), 79–85.
- Paglia-Boak, A., Mann, R.E., Adlaf, E.M., & Rehm, J. (2009). *Drug use among Ontario students 1977–2009: OSDUHS highlights* (CAMH Research Document Series No. 28). Toronto, Ont.: Centre for Addiction and Mental Health.
- Stewart, K. (2006). Overview and Summary. In *Drugs and Traffic: A Symposium* (pp. 2–11). Woods Hole, United States.
- Woodall, K. L., Chow, B. L., Lauwers, A., & Cass, D. (2015). Toxicological findings in fatal motor vehicle collisions in Ontario, Canada: a one-year study. *Journal of Forensic Sciences*, 60(3), 669–674.
- Young, M.M., Saewyc, E., Boak, A., Jahrig, J., Anderson, B., Doiron, Y., ... Clark, H. (2011). *Cross-Canada report on student alcohol and drug use*. Ottawa, Ont.: Canadian Centre on Substance Abuse.

