



National Institute
on Drug Abuse

DrugFacts

www.drugabuse.gov

Drugged Driving

Use of illegal drugs or misuse of prescription drugs can make driving a car unsafe—just like driving after drinking alcohol. Drugged driving puts not only the driver but also passengers and others who share the road at risk.



Why is drugged driving dangerous?

The effects of specific drugs differ depending on how they act in the brain. For example, marijuana can slow reaction time, impair judgment of time and distance, and decrease motor coordination. Drivers who have used cocaine or methamphetamine can be aggressive and reckless when driving. Certain kinds of sedatives, called benzodiazepines, can cause dizziness and drowsiness, which can lead to accidents.

Research studies have shown negative effects of marijuana on drivers, including an increase in lane weaving and poor reaction time and attention to the road. Use of

alcohol with marijuana made drivers more impaired, causing even more lane weaving (Hartman, 2013).

Scientists need to conduct more research to know how much of a drug impairs a person's driving ability. But even small amounts of some drugs can have a measurable effect. Some states have zero-tolerance laws for drugged driving. This means a person can face charges for driving under the influence (DUI) if there is *any* amount of drug in the blood or urine. It is important to note that many states are waiting for research to better define blood levels that indicate impairment, such as those they use with alcohol.

Read more about other commonly abused drugs and their health effects, which could impair driving, at

www.drugabuse.gov/drugs-abuse/commonly-abused-drugs-charts-0.

How many people take drugs and drive?

According to the 2013 National Survey on Drug Use and Health (NSDUH), an estimated 9.9 million people aged 12 or older (or 3.8 percent of teens and adults) reported driving under the influence of illicit* drugs during the year prior to being

*"Illicit" refers to use of illegal drugs, including marijuana according to federal law, and misuse of prescription drugs.

surveyed. This was lower than the rate in 2012 (3.9 percent). By comparison, in 2013, an estimated 28.7 million people (10.9 percent) reported driving under the influence of alcohol at least once in the past year (SAMHSA, 2014).

The National Highway Traffic Safety Administration's (NHTSA's) 2013-2014 National Roadside Survey found that more than 22 percent of drivers tested positive for illegal, prescription, or over-the-counter drugs. This was true for both weekday daytime and weekend nighttime drivers. But illegal drug use increased from daytime to nighttime while use of prescription drugs decreased. By comparison, 1.1 percent of drivers tested positive for alcohol during the daytime on weekdays, but 8.3 percent of drivers on weekend nights tested positive (Berning, 2015).

NSDUH data also show that men are more likely than women to drive under the influence of drugs or alcohol. And a higher percentage of young adults aged 18 to 25 drive after taking drugs or drinking than adults 26 or older (SAMHSA, 2014).

How often does drugged driving cause accidents?

It is hard to measure how many accidents drugged driving causes. This is because:

- a good roadside test for drug levels in the body does not yet exist
- people are not usually tested for drugs if they are above the legal limit for alcohol because there is already enough evidence for a DUI charge
- many drivers who cause accidents are found to have both drugs and alcohol or more than one drug in their system, making it hard to know which substance had the greater effect

One NHTSA study found that in 2009, 18 percent of drivers killed in an accident tested positive for at least one drug—an increase from 13 percent in 2005 (NHTSA,

2010). A 2010 study showed that 11.4 percent of fatal crashes involved a drugged driver (Wilson, 2010).

Drugged Driving in Older Adults

- In 2010, more than one-quarter (26.2 percent) of drugged drivers in fatal accidents were 50 years of age or older, up from 14.4 percent in 1993 (Brady, 2014).
- Illicit drug use in adults 50 to 59 years of age more than doubled from 3.4 percent in 2002 to 7.2 percent in 2010 (SAMHSA, 2014).
- Nine out of 10 people 65 years of age and older take one or more prescription drugs, and almost 40 percent take five or more (NCHS, 2014).
- Mental decline in older adults can lead to taking a prescription drug more or less often than they should or in the wrong amount. Older adults also may not break down the drug in their system as quickly as younger people. These factors can lead to unintentional intoxication.

Which drugs are linked to drugged driving?

After alcohol, marijuana is the drug most often linked to drugged driving. Tests for detecting marijuana in drivers measure the level of *delta-9-tetrahydrocannabinol* (THC), marijuana's active ingredient, in the blood. In the 2013-2014 National Roadside Survey, 12.6 percent of drivers on weekend nights tested positive for THC. This was significantly higher than the 8.6 percent who tested positive in 2007 (Berning, 2015).

A study of more than 3,000 fatally injured drivers in Australia showed that drivers with THC in their blood were much more likely to be at fault for an accident than drivers without drugs or alcohol in their

system. This likelihood increased as the level of THC in the blood increased (Drummer, 2004).



A 2010 nationwide study of fatal crashes found that 46.5 percent of drivers who tested positive for drugs had used a prescription drug, 36.9 percent had used marijuana, and 9.8 percent had used cocaine. The most common prescription drugs found were (Wilson, 2010):

- alprazolam (Xanax®)—12.1 percent
- hydrocodone (Vicodin®)—11.1 percent
- oxycodone (OxyContin®)—10.2 percent
- diazepam (Valium®)—8.4 percent

Note that the study did not distinguish between legal and illicit use of the drugs.

In a small study of driver deaths in six states, 28.3 percent of drivers tested positive for drugs in 2010—12.2 percent for marijuana and 5.4 percent for opioids. These numbers were significantly higher than in 1999 when 16.6 percent of drivers tested positive—4.2 percent for marijuana and 1.8 percent for opioids (Brady, 2014).

Why is drugged driving a problem in teens and young adults?

Motor vehicle crashes are the leading cause of death among young people aged 16 to 19 (Teen Drivers, 2014).

Teens are more likely than older drivers to underestimate or not recognize dangerous situations. They are also more likely to speed and allow less distance between vehicles (Teen Drivers, 2014). When lack of driving experience is combined with drug use, the results can be tragic.

Data from a 2011 survey of middle and high school students showed that in the 2 weeks before the survey, the number of 12th-grade students who had driven after using (O'Malley, 2013):

- marijuana was 12.4 percent
- other illicit drugs was 2.4 percent
- alcohol was 8.7 percent

A study of college students with access to a car found that 1 in 6 (about 17 percent) had driven under the influence of a drug other than alcohol at least once in the past year. Of those students, 57 to 67 percent did so at least three times and 27 to 37 percent at least 10 times. Marijuana was the most common drug used, followed by cocaine and prescription opioids (Arria, 2011).

Because drugged driving puts people at an increased risk for accidents, public health experts urge drug and alcohol users to develop social strategies to prevent them from getting behind the wheel of a car while impaired. Steps people can take include:

- offering to be a designated driver
- appointing a designated driver to take all car keys
- avoiding driving to parties where drugs and alcohol are present
- discussing the risks of drugged driving with friends in advance

Points to Remember

- Use of illegal drugs or misuse of prescription drugs can make driving a car unsafe—just like driving after drinking alcohol.
- In 2013, an estimated 9.9 million people aged 12 or older reported driving under the influence of illicit drugs.
- It is hard to measure how many accidents drugged driving causes.
- After alcohol, marijuana is the drug most often linked to drugged driving.
- When lack of driving experience is combined with drug use, the results can be tragic.
- In 2010, more than one-quarter of drugged drivers in fatal accidents were 50 years of age or older.
- Drug and alcohol users should develop social strategies to prevent them from getting behind the wheel of a car while impaired.

Learn More

For more information on drugged driving, visit:

www.whitehouse.gov/ondcp/drugged-driving

For more information on marijuana and prescription drug use and misuse, visit:

www.drugabuse.gov/publications/research-reports/marijuana-abuse

www.drugabuse.gov/publications/research-reports/prescription-drugs

Monitoring the Future

Learn more about the Monitoring the Future survey, which annually measures drug, alcohol, and tobacco use and related attitudes among teenage students nationwide:

www.drugabuse.gov/related-topics/trends-statistics/monitoring-future

This publication is in the public domain and may be used or reproduced in its entirety without permission from NIDA. Citation of the source is appreciated.

Updated May 2015

References

- Arria AM, Caldeira KM, Vincent KB, Garnier-Dykstra LM, O'Grady KE. Substance-related traffic-risk behaviors among college students. *Drug Alcohol Depend.* 2011;118(2-3):306-312.
- Berning A, Compton R, Wochinger K. *Results of the 2013-2014 National Roadside Survey of alcohol and drug use by drivers.* Washington, DC: National Highway Traffic Safety Administration; 2015. Report No. DOT HS 812 118.
- Brady JE, Guohua L. Trends in alcohol and other drugs detected in fatally injured drivers in the United States, 1999-2010. *Am J Epidemiol.* 2014;179(6):692-699.
- Drummer OH, Gerostamoulos J, Batziris H, et al. The involvement of drugs in drivers of motor vehicles killed in Australian road traffic crashes. *Accid Anal Prev.* 2004;36(2):239-248.
- Hartman RL, Huestis MA. Cannabis effects on driving skills. *Clin Chem.* 2013;59(3):478-492.
- National Center for Health Statistics (NCHS). *Health, United States, 2013: With Special Feature on Prescription Drugs.* Hyattsville, MD: Centers for Disease Control and Prevention; 2014. DHHS Publication No. 2014-1232.
- National Highway Traffic Safety Administration (NHTSA). *Drug Involvement of Fatally Injured Drivers.* Washington, DC: National Center for Statistics and Analysis; 2010. Report No. DOT HS 811 415.
- O'Malley PM, Johnston LD. Driving after drug or alcohol use by US high school seniors, 2001-2011. *Am J Public Health.* 2013;103(11):2027-2034.
- Substance Abuse and Mental Health Services Administration (SAMHSA). *Results from the 2013 National Survey on Drug Use and Health: Detailed Tables.* Rockville, MD: Substance Abuse and Mental Health Services Administration; 2014.
- Teen Drivers: Get the Facts. Centers for Disease Control and Prevention. http://www.cdc.gov/motorvehiclesafety/teen_drivers/teendriversonfactsheet.html. Reviewed October 7, 2014. Accessed May 19, 2015.
- Wilson FA, Stimpson JP, Pagán, JA. Fatal crashes from drivers testing positive for drugs in the U.S., 1993-2010. *Public Health Rep.* 2014;129(4):342-350.