

# SECTION 5:

## IMPAIRED DRIVING PREVENTION

Some of the most deadly consequences of excessive alcohol consumption occur when people drink and get behind the wheel. The impacts of alcohol on driving behavior result in compromised decision-making, delayed reaction times, and other impairment issues.

Statistics show combining alcohol and driving frequently results in crashes and fatalities.

### Traffic Safety Facts: Alcohol-Related Impaired Driving

Each year the National Highway and Traffic Safety Administration (NHTSA) publishes a summary of alcohol-related crashes and fatalities and alcohol-related impaired driving. An alcohol-impaired driving crash is one in which at least one driver or motorcycle driver has a BAC of .08 or higher.

- There were 11,773 people killed in alcohol-impaired driving crashes in 2008. This is a 9.7% decrease from 2007. When compared to data from 2007, 43 states saw decreases in the number of alcohol-impaired driving fatalities in 2008.<sup>1</sup>
- Although alcohol-related fatalities were involved in 32% of all driving fatalities in 2007 and 2008, overall fatalities and alcohol-impaired fatalities decreased by 9.7% from 2007 to 2008.<sup>1</sup>
- Those drivers with a BAC of .08 or higher and in the age group of 21-34 years old represent 32% of all drivers involved in fatal crashes in 2008.<sup>2</sup>
- Nights and weekends house the higher percentages of alcohol-impaired drivers involved in fatal crashes. Thirty-six percent of these drivers with a BAC of .08 or higher were involved in fatal crashes that occurred at night compared to 9% during the day. Thirty-one percent were involved in fatal crashes that occurred on weekends, compared to 15% during the week.<sup>2</sup>
- About seven fatal crashes happen per hour on weekends between 2-3 AM. Contrary to popular belief, about five fatal crashes happen per hour on weekday evenings during rush hour between 5-6 PM.<sup>2</sup>
- Males are more likely to drive and be involved in a fatal crash with a BAC of .08 or higher than females (25% versus 13%).<sup>2</sup>
- Drivers with a BAC of .08 or higher and involved in a fatal

crash were eight times more likely to have a prior DWI (driving while impaired) conviction compared to drivers with no measurable BAC.<sup>2</sup>

- Motorcycle drivers continue to have the highest rate of drivers with a BAC of .08 or higher who are involved in a fatal crash.<sup>2</sup>
- The majority of drivers (84%) with a measurable BAC (of .01 or higher) had a BAC of .08 or higher when they were involved in a fatal crash.<sup>2</sup>

### DID YOU KNOW...?

Under the Zero Tolerance Laws, underage drivers operating a vehicle with alcohol in their system are penalized. A BAC of .01 will result in the driver's license being suspended for at least six months. [www.zerotolerancelaws.com/index.html](http://www.zerotolerancelaws.com/index.html).

**Note:** This manual was published in early August 2010, before the 2009 Traffic Safety Fact Sheets were available. Please check <http://www-nrd.nhtsa.dot.gov/cats/index.aspx> for updated information in Fall 2010.

### Alcohol's Impact on Driving Behavior

It is estimated every two minutes the typical person makes 400 observations, 40 decisions, and one mistake while driving.<sup>3</sup> This is when the person is sober. When a person is impaired, the number of mistakes dramatically increases as their ability to make observations and safe decisions decreases. The less capable people are of making a simple decision, from changing lanes to applying the brakes, the more likely it is that they will be involved in a car crash.

### Alcohol and Vision

Did you know 90% of the information the brain receives comes through the eyes? If your vision is impaired from drinking, you are making decisions based on poor and insufficient information. Alcohol relaxes the muscles in the eyes that are responsible for the following:

- The muscle that holds the lens in the retina to help our eyes focus becomes relaxed causing faulty or fuzzy pictures.

- Alcohol reduces the sensitivity of the cone cells in the retina, which means the “sharpness” of the picture we see is reduced.
- Our best vision happens when both eyes are looking at the same thing. Six different muscles coordinate our focus and alcohol can relax these muscles enough to cause double vision.
- Peripheral vision is critical when we are driving because it helps us see cars next to us and helps us see people walking out onto the road without turning our head. When alcohol is consumed, these eye muscles are negatively impacted.
- It has been estimated that just a few drinks can reduce the field of vision by up to 30%, impairing the ability to see what is out there.

### Alcohol and Hand-Eye Coordination

When police do a roadside sobriety test, a person is asked to walk a straight line, hold their arms out at their sides, and touch their nose with their fingers. People who are impaired can do neither. The reason for this is because the person’s coordination between the eyes, the brain, and the muscles are not functioning correctly. This same concept also holds true when driving a car. The brain tells the foot to step on the brake or the gas pedal and it also tells the foot how hard to push. The brain tells the hands to steer between the lines or when to start turning the wheel. When a person has been drinking, one of the results is a slowed reaction time between the message the brain sends and the execution of that message. For instance, a person does not notice they have wandered over the centerline and there is a delayed reaction to bring the car back into the correct lane.

### ***DID YOU KNOW...?***

Handheld cell phone use while driving is banned in seven states, including D.C., and text messaging is also banned in 28 states for all drivers. Check out [http://www.ghsa.org/html/stateinfo/laws/cellphone\\_laws.html](http://www.ghsa.org/html/stateinfo/laws/cellphone_laws.html) to see the laws for your state!

### Alcohol and Judgment

Perhaps the most significant impairment caused by drinking is not physical, but mental. In fact, the judgment center is most affected when a person has been drinking. When a person’s judgment is affected, that person might believe he or she is able to drive a car after drinking, stating, “I’m just fine” or “I have no other alternatives”.

### ***MAKE THE PLEDGE***

As peer educators, we are role models for other students. In 2010, the Students T.A.L.K. peer educators at Western Illinois University included, “I will not text while driving. I will only use hands free calling or I will pull over,” in their Safe Spring Break pledge to remind students about the dangers of texting and driving.



### Impairment and Concentration

When people drink they can only focus and concentrate on one task at a time. Driving involves doing three to four tasks simultaneously. A person who is impaired may focus too much on watching their speed limit, he or she will not notice they are driving on the shoulder. Drivers may be so focused on checking the rear view mirror for a police car they do not notice the stoplight they are approaching has turned red. The lack of hand-eye coordination and muscle control, matched with a limited scope of concentration, makes driving a car after drinking very dangerous.

### Keeping Your Friends and Yourself Safe

All of these physical effects, from lack of vision and hand-eye coordination to impaired concentration and judgment, make drinking and driving dangerous. For these reasons, it is very important that people:

- Make the commitment not to drink and drive
- Do not mix alcohol and other drugs
- Plan a safe, sober ride home before going out
- Take turns being a substance-free, designated driver
- Always wear a seatbelt
- Never ride with a driver who has been drinking or using other drugs

## **HOW TO SPOT THE IMPAIRED DRIVER**

Exaggerated or unusual driving can be a good warning signal that a driver is impaired. If you suspect someone is impaired, drive defensively, allowing plenty of space between you and the suspected car to avoid a collision.

Look for these signs:

- Unreasonably fast or slow speeds or inconsistency in speeds
- Frequent lane changing
- Swerving when passing
- Ignoring traffic signals and signs
- Jerky starts and stops
- Driving at night without lights
- Approaching traffic signals and signs unreasonably fast or slow
- Sitting at stop signs for long periods of time
- Driving too close to the curbs and shoulders; hugging the edge of the road or straddling the center line
- Driving with the windows down in cold weather
- Driving with the head partly or completely out the window

### **If you are concerned about a driver:**

- Do not confront the driver
- Get the license plate number and description of the vehicle
- Call 911, local authorities or state patrol to report your concern (many states have a special number you can dial from your cell phone to report suspicious driver activity)

### **Drugged Driving<sup>4</sup>**

Alcohol-related impaired driving garners many of the media headlines; however driving under the influence of other substances can greatly alter a driver's ability to make good choices on the road. From marijuana to cocaine to heroin to prescription drugs, or any substances that alter one's ability to focus, react quickly, use peripheral vision, and think clearly should not be used before or while driving.

- Often in combination with alcohol, drugs are used by 10-22% of drivers involved in crashes.
- Marijuana limits learning, memory, perception, judgment, and complex motor skills, all of which are skills needed to drive a vehicle.
- The 2008 National Survey on Drug Use and Health reported 4% of the population (about 10 million people) reported driving under the influence of illicit drugs in the past year. Of this group, the 18-25 year olds had the highest percentage (12.3%) of people engaging in this behavior.<sup>5</sup>
- Drinking and drugged driving are often linked behaviors. Studies have found that many drivers who test positive for alcohol also test positive for THC, the active ingredient in marijuana.

### **Drowsy Driving<sup>6</sup>**

In addition to alcohol-related and drugged driving, another concern for college students is drowsy driving. Given the long days and late nights many students maintain with classes, studying, work, and social time with friends, it is too easy for students to get behind the wheel with less than adequate sleep.

- Sleepy drivers cause approximately 100,000 crashes every year in the United States.
- Drivers younger than 25 years old cause 55% of drowsy driving crashes.
- Being awake for 18 hours is equal to a blood alcohol concentration (BAC) of .08 and leaves you at equal risk for a crash.
- Sleepy drivers cause more than 1,550 fatalities and 71,000 injuries every year.

### **Signs of Drowsy Driving**

- Yawning and nodding off
- Closing your eyes (at 60 mph if you close your eyes only for one second, you have traveled 88 feet!)
- Suddenly jerking the wheel to get back in your lane
- Missing road signs or exits
- Having disconnected thoughts

## What You Can Do

- Avoid alcohol and medications that might interact with fatigue and make it worse.
- Get a good night's sleep before the drive and avoid driving during your body's own down time. Take breaks every two hours to nap and stay somewhere overnight, rather than driving through the night. Try to limit your naps to 15 – 20 minutes. Any longer than 20 minutes can make you groggy five minutes after waking up.
- Drive with other people. Engaging in conversation may help keep you focused, and they may notice when you are too tired to keep driving. Take turns driving when you start feeling tired.

## Sources

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## LACK OF ZZZZZS AMONG COLLEGE STUDENTS

According to the Fall 2009 National College Health Assessment, only about 46% of students had enough sleep to feel rested in the morning during three to five days of the past week. Approximately 44% of students felt tired, dragged out, or sleepy during the day on three or more days in the past week.

## INTERESTED IN MORE IMPAIRED DRIVING PREVENTION INFORMATION?

Check out BACCHUS' [friendsdrivesober.org](http://friendsdrivesober.org) site, devoted entirely to impaired driving prevention. You will find comprehensive information about the scope of the impaired driving problem, tips on what steps you can take to prevent it, relevant facts and statistical information, and what you can do to make a positive difference in your community.



**BACCHUS also produces helpful materials to help you educate your campus' students about these important topics. These include pamphlets (i.e., Drugged Driving, Impaired Driving Prevention), posters, and giveaways with impaired driving prevention messages (i.e., drowsy driving door hangers, sticky notes, highlighters, air fresheners, chip clips).**