Workplace substance abuse

Substance abuse places a major burden on all segments of American society, including the workplace. The good news, however, is that experience demonstrates that employers have enormous potential to protect their businesses from the negative impact of substance abuse by educating employees and encouraging individuals with substance abuse problems to seek help.

Alcohol and drug abuse in the workplace

No business, regardless of size or location, is immune to the countless problems that alcohol and drug abuse can cause. Most individuals who abuse alcohol and other drugs are employed, and when they arrive for work, they don't leave their problems outside the door.

Although overall rates have not increased over the past several years, alcohol and drug abuse continues to afflict American society. The following statistics are evidence of this abuse:

- An estimated 14.8 million Americans are current illicit drug users.
- Nearly 11 percent of youths between the ages of 12 and 17 are current illicit drug users. Among this population, marijuana is the most prevalent drug of use.
- Young adults between the ages of 18 and 20 have the highest rate of current illicit drug use at roughly 20 percent.
- Heavy drinking occurs most frequently among young adults between the ages of 18 and 25 (13.3 percent), peaking at age 21 (17.4 percent).
- The rate of current illicit drug use is higher among men (8.7 percent) than women (4.9 percent).
- Heavy drinking correlates strongly with illicit drug use. Of 12.4 million heavy drinkers, 30.5 percent are also current illicit drug users.
- Although the *rate* of current illicit drug use is higher among unemployed individuals, the vast majority of current illicit drug users in this country are employed. Of 12.3 million adult current illicit drug users, 9.4 million (77 percent) work.
- An estimated 6.5 percent of full-time and 8.6 percent of part-time workers are current illicit drug users.
- Alcohol is the most widely abused drug among working adults. An estimated 6.2 percent of adults working full-time are heavy drinkers.
- More than one in three (38 percent) workers between the ages of 18 and 25 are binge drinkers.

If You Test Positive for Drugs or Alcohol -You May Perform Other Safety-Sensitive Functions

Alcohol Prohibitions

- A driver may not report for duty or remain on duty requiring the performance of safety-sensitive functions (including driving) while having an alcohol concentration of 0.04 or greater.

- A driver may not use alcohol while performing safety-sensitive functions (including driving).
- A driver may not perform safety-sensitive functions (including driving) within 4 hours after using alcohol.
- A driver required to take a post-accident test may not use alcohol for 8 hours or until he/she undergoes a post-accident alcohol test, whichever occurs first.

Refusal to Submit to a Required Alcohol or Drug Test

- A driver may not refuse to submit to a required test and an employer must remove the driver from all safety-sensitive functions (including driving) if he/she refuses a required test.

Drug Prohibitions

- A driver may not report for duty or remain on duty requiring the performance of safety-sensitive functions (including driving) when the driver uses a controlled substance.
- A driver may not report for duty, remain on duty, or perform a safety-sensitive function (including driving), if the driver tests positive for controlled substances.

A positive drug or alcohol test will result in:

- Removal From All Safety-Sensitive Functions
- Required Evaluation and Testing
- Another Drug or Alcohol Test (Return-to-Duty) Before Resuming Safety-Sensitive Functions
- Potential Follow-Up Testing for up to 5 Years.

Effects of alcohol misuse

Alcohol is a socially accepted drug that has been consumed throughout the world for centuries. It is considered a recreational beverage when consumed in moderation for enjoyment and relaxation during social gatherings. However, when consumed primarily for its physical and mood-altering effects, it is a substance of abuse. As a depressant, it slows down physical responses and progressively impairs mental functions.

Signs and symptoms

Physical characteristics

- Dulled mental processes
- Lack of coordination
- Odor of alcohol on breath
- Possible constricted pupils
- Sleepy or stuporous condition
- Slowed reaction rate
- Slurred speech

(NOTE: Except for the odor, these are general signs and symptoms of any depressant substance.)

Health risks

The chronic consumption of alcohol (average of three servings per day of beer [12 ounces], whiskey [1 ounce], or wine [6 ounce glass]) over time may result in the following health hazards:

- The liver is the primary site of alcohol metabolism and can be severely affected by heavy alcohol use. The three primary dangers are fatty liver, alcoholic hepatitis, and cirrhosis.
- Heavy alcohol use can also severely affect the gastrointestinal tract, contributing to inflammation of the esophagus, exacerbating peptic ulcers, and causing acute and chronic pancreatitis. It interferes with the absorption of nutrients from food and contributes to malnutrition.
- Heavy alcohol use affects the heart and vascular system, contributing to heart attacks, hypertension, and strokes.
- Either because of direct action or indirectly through the malnutrition, liver disease, and other effects it causes, alcohol depresses immune system functioning and increases the likelihood of infection.
- There is considerable evidence that alcohol abuse is associated with the incidence of cancer, particularly cancers of the liver, esophagus, nasopharynx, and larynx.
- Heavy alcohol consumption causes brain damage manifested through dementia, blackouts, seizures, hallucinations, and peripheral neuropathy.

The following table shows some general effects of varying levels of BAC:

Driver impairment

BAC	Behavioral Effects
0.02-0.09%	Loss of muscular coordination, impaired senses, changes in mood and personality.
0.10-0.19%	Marked mental impairment, further loss of coordination, prolonged reaction time.
0.20-0.29%	Nausea, vomiting, double vision.
0.30-0.39%	Hypothermia, blackouts, anesthesia.
0.40-0.70%	Coma, respiratory failure, death.

Alcohol consumption is associated with a wide range of accidents and injuries resulting from the impaired performance of complex mental and motor functions. The relationship between alcohol and motor vehicle crashes is well known. The subtlety and complexity of the skills required to operate motor vehicles make them susceptible to impairment by even low doses of alcohol.

The evidence linking alcohol and transportation accidents is supported by National Institute on Alcohol Abuse and Alcoholism experimental studies of alcohol's effect on specific driving-related skills. These skills may be divided into cognitive skills, such as information processing, and psychomotor skills (those involving eye-brain-hand coordination). Impairment is related to alcohol in terms of its concentration in the bloodstream. For example, a blood alcohol concentration (BAC) of 0.04 percent might be achieved by a 150-pound man consuming two drinks in one hour.

The brain's control of eye movements is highly vulnerable to alcohol. In driving, the eyes must focus briefly on important objects in the visual field and track them as they (and the vehicle) move. Low to moderate BACs (0.03 to 0.05 percent) interfere with voluntary eye movements, impairing the eye's ability to rapidly track a moving target.

Steering is a complex psychomotor task in which alcohol effects on eye-to-hand reaction time are superimposed upon the visual effects described above. Significant impairment in steering ability may begin as low as about 0.035 percent BAC and rises as BAC increases.

Alcohol impairs nearly every aspect of information processing by the brain. Alcohol-impaired drivers require more time to read a street sign or to respond to a traffic signal than unimpaired drivers; consequently, they tend to look at fewer sources of information. Research on the effects of alcohol on driver performance shows a narrowing of the attentional field beginning at about 0.04 percent BAC.

The most sensitive aspect of driving performance is the division of attention among component skills. Drivers must maintain their vehicles in the proper lane and direction while monitoring the environment for vital safety information, such as other vehicles, traffic signals, and pedestrians. Alcohol-impaired subjects who are required to divide their attention between two tasks tend to favor one of them. Therefore, alcohol-impaired drivers tend to concentrate on steering, becoming less vigilant with respect to safety information. Results of numerous studies indicate that divided attention deficits occur as low as 0.02 percent BAC.

The combined effects of these individual deficits on overall performance have been studied under simulated vehicle-operating conditions. A review of six ground-traffic simulator studies demonstrated consistently poorer performance at BACs of 0.048 percent and above.

Results of these studies permit certain conclusions to be drawn. First, the degree of impairment depends on the complexity of the task involved as well as the BAC. Second, the magnitude of alcohol-induced impairment rises as BAC increases and dissipates as alcohol is eliminated from the body. Third, at a given BAC, some skills are more impaired than others. Finally, investigators have not found an absolute BAC threshold below which there is no impairment of any kind. Certain skills important for driving are impaired at 0.01 to 0.02 percent BAC, the lowest levels that can be measured reliably by commonly used devices.