

What You Need to Know About Youth & Alcohol

WHAT IS ALCOHOL?

Ethyl alcohol, or ethanol, is an intoxicating ingredient produced through fermentation of yeast, sugars and starches and can be found in beer, wine, seltzers and liquor.¹

HOW MUCH ALCOHOL IS IN A STANDARD DRINK?

In the United States, a standard alcoholic drink is defined as any beverage containing 0.6 fluid ounces or 14 grams of pure alcohol, which is found in 12 ounces of beer (5% alcohol content), 8 ounces of malt liquor or “alcopops” (7% alcohol content), 5 ounces of wine (12% alcohol content) or 1.5 ounces (“one shot”) of 80 proof (40% alcohol content) distilled spirits.¹

Binge drinking is defined as consuming 5 or more standard drinks on an occasion for males or 4 or more drinks on an occasion for females. This pattern of consumption generally brings blood alcohol concentration (BAC) to 0.08% or above; however, BAC varies depending upon an individual’s size, sex, alcohol tolerance, health status and genetics. Some youth may experience acute intoxication with lower levels of alcohol consumption (e.g., 3 standard drinks for female youth or 3 to 5 standard drinks for male youth, if consumed within a 2-hour period and depending on the individual’s age and size.²). Ninety percent of alcohol consumption among youth takes place in the form of binge drinking.²

HOW DOES ALCOHOL AFFECT THE BODY AND BRAIN?

Alcohol affects the body quickly as it’s absorbed through the lining of the stomach into the bloodstream and then spreads to tissues throughout the body.³ Alcohol will reach the brain within five minutes of consumption, impacting the communication pathways within 10 minutes to affect memory, coordination and reaction times and speech.⁵ Factors such as how much and how often a person drinks alcohol, the age at which they began, how long they’ve been drinking, age, sex and health status can all impact how alcohol affects the brain and body.⁴

Alcohol starts to metabolize through the liver after about 20 minutes of consumption.³ It takes approximately one hour at a minimum per standard drink for the liver to begin to process and breakdown (metabolize) alcohol. Intoxication occurs when the amount of alcohol consumed exceeds the liver’s ability to metabolize the alcohol.³

The experience of waiting for the body to clear toxic byproducts of alcohol, also known as a “hangover,” can result in uncomfortable symptoms that vary from person to person. It also can affect a person’s cognitive ability and ability to perform certain tasks, which can be painful and dangerous.⁷ Symptoms and impairment can last 24 hours or longer. Despite various claims, there is no magic potion to speed up this recovery time.⁷

WHAT ARE THE HEALTH EFFECTS OF EXCESSIVE ALCOHOL USE?

Alcohol is linked to increases in unintentional injuries such as car crashes, falls, drowning, burns and firearm injuries.⁵ In 2016, driving while under the influence of alcohol accounted for 28% of all traffic-related deaths in the United States, equating to 29 deaths per day.⁶ Additionally, alcohol use, particularly binge drinking, is associated with violent deaths (e.g., suicide, homicide), as well as increased risk for unprotected sex, sexually transmitted diseases and unplanned pregnancies. Of middle and high school students who are sexually active, 19% reported drinking alcohol or using drugs before their last sexual encounter.⁸ Excessive alcohol use, especially in the form of heavy or binge drinking, is associated with nearly 60 health conditions, including chronic health problems, liver cirrhosis (chronic liver damage that can lead to scarring and failure), high blood pressure, pancreatitis (inflammation of the pancreas), and various types of cancer including liver, mouth, larynx, esophagus and breast.¹

ARE THERE OTHER RISKS FROM ALCOHOL USE?

Yes. Youth who drink alcohol are more likely to experience problems at school such as higher rates of absence and/or lower grades, social problems such as conflict with friends and family, and lower participation in activities/extracurriculars, legal problems such as arrests for driving or physically harming someone while under the influence, physical and/or sexual violence, and increased risk of suicide and/or homicide.⁵

An individual can also overdose on alcohol, often called alcohol poisoning.⁹ This occurs when the amount of alcohol in the bloodstream causes parts of the brain that control breathing, heart rate and temperature to shut down and not function properly. Symptoms of alcohol poisoning include

slow heart rate, challenges breathing, seizure, loss of consciousness, vomiting and clammy skin.⁹ Without emergency medical attention, an individual experiencing an alcohol overdose may go into a coma or even die.⁹ A person can consume a fatal dose before passing out. Even when unconscious or having stopped drinking, alcohol continues to be released from the stomach and intestines into the bloodstream, and the level of alcohol in a person's body continues to rise.⁹

CAN ALCOHOL BE ADDICTIVE?

Yes. The younger a person is when they start to drink, the greater the risk of developing an alcohol use disorder (AUD) and experiencing other negative health outcomes from alcohol use.² For example, adults age 26 and older who began drinking before age 15 are 5.6 times as likely to have an AUD than individuals who wait until they are 21 to first consume alcohol.² Genetics and environment also play a role; therefore, delaying use and preventing underage use despite alcohol initiation are even more important for reducing risk.

HOW MANY YOUNG PEOPLE USE ALCOHOL?



In all 50 states, the purchase of alcohol is prohibited by individuals under 21 years of age. Yet it is the most commonly used substance – more so than marijuana or tobacco – among youth.³ In 2019, 8% of 8th graders and 29% of 12th grade students drank alcohol within the past 30 days.⁵ Binge drinking accounted for 4% of 8th grade students' alcohol consumptions within the past two weeks and 14% for 12th grade students.⁵

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