



What Is Binge Drinking?

The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 percent—or 0.08 grams of alcohol per deciliter—or higher. For a typical adult, this pattern of alcohol misuse corresponds to consuming 4 or more drinks (female), or 5 or more drinks (male) in about 2 hours. Research shows that fewer drinks in the same timeframe result in the same BAC in youth; only 3 drinks for girls, and 3 to 5 drinks for boys, depending on their age and size.¹

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TYPICALLY:



FOR WOMEN
4+ DRINKS



FOR MEN
5+ DRINKS



IN ABOUT
2 HOURS

How Common Is Binge Drinking?

According to the 2019 National Survey on Drug Use and Health, about 66 million, or about 24 percent of people in the United States ages 12 and older reported binge drinking during the past month.² While binge drinking is a concern among all age groups, there are important trends in the following age groups:

- » **Preteens and teens:** Rates of binge drinking among 12- to 17-year-olds have been decreasing in the last decade. Still, according to the 2019 National Survey on Drug Use and Health (NSDUH), 4.9 percent of people in this age group reported binge drinking in the past month.³
- » **Young adults:** Rates of binge drinking among 18- to 22-year-olds have been decreasing in the past decade but remain high. According to the 2019 NSDUH, 27.7 percent of people in this age group who are not enrolled in college full-time and 33.0 percent of full-time college students in this age group reported binge drinking in the past month.⁴
- » **Older adults:** Binge drinking is on the rise among older adults—more than 10 percent of adults ages 65 and older reported binge drinking in the past month,³ and the prevalence is increasing.⁴ The increase in this group is of particular concern because many older adults use [medications that can interact with alcohol](#), have health conditions that can be exacerbated by alcohol, and may be more susceptible to alcohol-related falls and other accidental injuries.

- » **Women:** The number of women who binge drink has also increased. Studies show that among U.S. women who drink, about one in four has engaged in binge drinking in the last month, averaging about three binge episodes per month and five drinks per binge episode.⁵ These trends are concerning as [women are at an increased risk for health problems related to alcohol misuse](#).

What Are the Consequences and Health Effects of Binge Drinking?

While drinking any amount of alcohol can carry certain risks,* crossing the binge threshold increases the risk of acute harm, such as [blackouts](#) and [overdoses](#). Binge drinking also increases the likelihood of unsafe sexual behavior and the risk of sexually transmitted infections and unintentional pregnancy. These risks are greater at higher peak levels of consumption. Because of the impairments it produces, binge drinking also increases the likelihood of a host of potentially deadly consequences, including falls, burns, drownings, and car crashes.

Alcohol affects virtually all tissues in the body. Data suggest that even one episode of binge drinking can compromise function of the immune system and lead to acute pancreatitis (inflammation of the pancreas) in individuals with underlying pancreatic damage. Alcohol misuse, including repeated episodes of binge drinking, over time contributes to liver and other chronic diseases, as well as increases in the risk of several types of cancer, including head and neck, esophageal, liver, breast, and colorectal cancers.

Binge drinking can be deadly. Roughly 95,000 deaths resulted from alcohol misuse in the United States between 2011 and 2015, and almost half (46 percent) were associated with binge drinking.⁶ Binge drinking also is costly. Researchers estimated that binge drinking accounted for 77 percent (\$191.1 billion) of the \$249 billion economic cost of alcohol misuse in 2010.⁷

How Does Binge Drinking Affect Adolescents?

Brain development, once thought to taper off at the end of childhood, enters a unique phase during the adolescent years. Research indicates that repeated episodes of binge drinking during the teen years can alter the trajectory of adolescent brain development and cause lingering deficits in social, attention, memory, and other cognitive functions.⁸

What Is “High-Intensity” Drinking?

“High-intensity drinking” is defined as alcohol intake at levels twice or more the gender-specific threshold for binge drinking. This dangerous drinking pattern means 8 or more drinks for women and 10 or more drinks for men on one occasion. Research suggests that high-intensity drinking peaks around age 21 and is most common among young adults attending college.⁹

This pattern of drinking is of particular concern because it is associated with an even greater risk of severe health and safety consequences. More research is needed to identify interventions that can be used to discourage this pattern of use.

* For information on impairments at lower levels, please see [this chart](#).

For more information about binge drinking, alcohol use disorder, and available evidence-based treatments, please visit [Rethinking Drinking](#) and the [NIAAA Alcohol Treatment Navigator](#).

¹ Chung, T.; Creswell, K.G.; Bachrach, R.; et al. Adolescent binge drinking: Developmental context and opportunities for prevention. *Alcohol Research: Current Reviews* 39(1):5–15, 2018. PMID: 30557142

² Substance Abuse and Mental Health Services Administration (SAMHSA). 2019 National Survey on Drug Use and Health (NSDUH). Table 2.20A—Binge Alcohol Use in Past Month Among Persons Aged 12 or Older, by Age Group and Demographic Characteristics: Numbers in Thousands, 2018 and 2019, and 2.20B—Table 2.20B Binge Alcohol Use in Past Month Among Persons Aged 12 or Older, by Age Group and Demographic Characteristics: Percentages, 2018 and 2019. Available at:

<https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect2pe2019.htm#tab2-20a> and

<https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect2pe2019.htm#tab2-20b>. Accessed January 6, 2021.

³ Substance Abuse and Mental Health Services Administration (SAMHSA). 2019 National Survey on Drug Use and Health (NSDUH). Table 2.7B—Alcohol Use, Binge Alcohol Use, and Heavy Alcohol Use in Past Month Among Persons Aged 12 or Older, by Detailed Age Category: Percentages, 2018 and 2019. Available at:

<https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect2pe2019.htm#tab2-7b>. Accessed January 6, 2021.

⁴ Substance Abuse and Mental Health Services Administration (SAMHSA). 2019 National Survey on Drug Use and Health (NSDUH). Table 6.21B—Types of Illicit Drug, Tobacco Product, and Alcohol Use in Past Month among Persons Aged 18 to 22, by College Enrollment Status and Gender: Percentages, 2018 and 2019. Available at:

<https://www.samhsa.gov/data/sites/default/files/reports/rpt29394/NSDUHDetailedTabs2019/NSDUHDetTabsSect6pe2019.htm#tab6-21b>. Accessed February 25, 2021.

⁵ Kanny, D.; Naimi, T.S.; Liu, Y.; Lu, H.; and Brewer, R.D. Annual total binge drinks consumed by U.S. adults, 2015. *American Journal of Preventive Medicine* 54(4):486–496, 2018. PMID: 29555021

⁶ Esser, M.B.; Sherk, A.; Liu, Y.; et al. Deaths and years of potential life lost from excessive alcohol use—United States, 2011–2015. *MMWR* 69(39):1428–1433, 2020. PMID: 33001874

⁷ Sacks, J.J.; Gonzales, K.R.; Bouchery, E.E.; et al. 2010 National and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine* 49(5):e73–e79, 2015. PMID: 26477807

⁸ Jones, S.A.; Lueras, J.M.; and Nagel, B.J. Effects of binge drinking on the developing brain: Studies in humans. *Alcohol Research: Current Reviews* 39(1):87–96, 2018. PMID: 30557151

⁹ Patrick, M.E.; and Azar, B. High-intensity drinking. *Alcohol Research: Current Reviews* 39(1):49–55, 2018. PMID: 30557148

