



## What Is Binge Drinking?

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines binge drinking as a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08%—or 0.08 grams of alcohol per deciliter—or more. This typically happens if a woman has four or more drinks, or a man has five or more drinks, within about 2 hours. Research shows that fewer drinks in the same time frame result in the same BAC in youth: only three drinks for girls and three to five drinks for boys, depending on their age and size.<sup>1</sup>

## How Common Is Binge Drinking?

According to the 2021 National Survey on Drug Use and Health (NSDUH), about 60 million, or 21.5%, of people in the United States ages 12 and older reported binge drinking during the past month.<sup>2,3</sup> Although binge drinking is a concern among all age groups, there are important trends in the following groups.

- » **Preteens and Teens:** Rates of binge drinking among young people have been steadily decreasing in the last decade. Still, according to 2022 data from the Monitoring the Future survey, 2.2% of 8th graders, 5.9% of 10th graders, and 12.6% of 12th graders reported binge drinking in the past 2 weeks.<sup>4</sup>
- » **Young Adults:** Rates of binge drinking among people ages 18 to 22 have been decreasing in the past decade, but remain high. According to the 2021 NSDUH, 49.3% of full-time college students ages 18 to 22 drank alcohol in the past month, and about 27.4% of students engaged in binge drinking during that same time frame.<sup>5</sup>
- » **Older Adults:** Binge drinking is on the rise among older adults—more than 11.4% of adults ages 65 and older reported binge drinking in the past month, and the prevalence is increasing.<sup>6</sup> 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:** Studies show that among U.S. women who drink, approximately 1 in 4 have engaged in binge drinking in the last month, averaging about three binge episodes per month and five drinks per binge episode.<sup>7</sup> These trends are concerning because [women are at increased risk for health problems related to alcohol misuse](#).

## What Is Binge Drinking?

A pattern of drinking that brings blood alcohol concentration (BAC) to 0.08 g/dL (0.08%) or more

TYPICALLY:



FOR WOMEN  
4+ DRINKS



FOR MEN  
5+ DRINKS



IN ABOUT  
2 HOURS

## What Are the Consequences and Health Effects of Binge Drinking?

Although 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. Over time, alcohol misuse, including repeated episodes of binge drinking, contributes to liver and other chronic diseases as well as increases the risk of several types of cancer, including head and neck, esophageal, liver, breast, and colorectal cancers.

Binge drinking can be deadly. Approximately 140,000 deaths resulted from alcohol misuse annually in the United States between 2015 and 2019, and almost half of those were associated with binge drinking.<sup>8</sup> Binge drinking is also costly. Researchers estimated that binge drinking accounted for 77% of the \$249 billion (i.e., \$191.1 billion) economic cost of alcohol misuse in 2010.<sup>9</sup>

## 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.<sup>10</sup>

## 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.<sup>11</sup> 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.<sup>12</sup>

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

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According to the Substance Abuse and Mental Health Services Administration (SAMHSA), caution should be used when comparing estimates from the 2020 and 2021 NSDUH to those from prior years due to methodological changes. Prior to the COVID-19 pandemic, data for NSDUH were collected during in-home visits, using computer-assisted techniques. The COVID-19 pandemic necessitated a delay in data collection during 2020 and the introduction of web-based data collection, with very limited in-person data collection. Because these changes in data collection coincided with the spread of the COVID-19 pandemic and any related behavioral or mental health changes, we cannot fully separate the effects of methodological changes from true changes in the outcomes. Please see the [Methodological Summary and Definitions](#) for more information.

\* For information on impairments at lower levels, please see the [NIAAA BAC-level infographic](#).

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- <sup>1</sup> Chung T, Creswell KG, Bachrach R, Clark DB, Martin CS. Adolescent binge drinking: developmental context and opportunities for prevention. *Alcohol Res.* 2018;39(1):5-15. PubMed PMID: [30557142](#)
- <sup>2</sup> SAMHSA. Center for Behavioral Health Statistics and Quality. 2021 National Survey on Drug Use and Health. Table 2.42A—Binge alcohol use in past month: among people aged 12 or older; by age group and geographic and socioeconomic characteristics, numbers in thousands, 2021. [cited 2023 Feb 28]. Available from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt39441/NSDUHDetailedTabs2021/NSDUHDetailedTabs2021/NSDUHDetTabsSect2pe2021.htm#tab2.42a>
- <sup>3</sup> SAMHSA. Center for Behavioral Health Statistics and Quality. 2021 National Survey on Drug Use and Health. Table 2.42B—Binge alcohol use in past month: among people aged 12 or older; by age group and geographic and socioeconomic characteristics, percentages, 2021. [cited 2023 Feb 28]. Available from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt39441/NSDUHDetailedTabs2021/NSDUHDetailedTabs2021/NSDUHDetTabsSect2pe2021.htm#tab2.42b>
- <sup>4</sup> Miech RA, Johnston LD, Patrick ME, O'Malley PM, Bachman JG, Schulenberg JE. (2023). Monitoring the Future National Survey Results on Drug Use, 1975–2022: Secondary School Students. [Graph], Alcohol: trends in binge prevalence of use in 8th, 10th, and 12th grade. [cited 2023 Mar 11]. Available from: <https://monitoringthefuture.org/data/Prevalence.html>
- <sup>5</sup> Population prevalence estimates (%) are weighted by the person-level analysis weight and derived from the Center for Behavioral Health Statistics and Quality (CBHSQ). 2021 National Survey on Drug Use and Health (NSDUH-2021-DS0001) public use files. Past-month alcohol use: a drink of an alcoholic beverage (a can or bottle of beer, a glass of wine or a wine cooler, a shot of distilled spirits, or a mixed drink with distilled spirits in it), not counting a sip or two from a drink in the past 30 days. Past-month binge alcohol use: five or more drinks on the same occasion for males or four or more drinks on the same occasion for females on at least 1 day in the past 30 days. [cited 2023 Feb 28]. Available from: <https://www.datafiles.samhsa.gov/dataset/national-survey-drug-use-and-health-2021-nsduh-2021-ds0001>
- <sup>6</sup> SAMHSA. Center for Behavioral Health Statistics and Quality. 2021 National Survey on Drug Use and Health. Table 2.9B—Alcohol, binge alcohol, and heavy alcohol use in past month: among people aged 12 or older; by detailed age category, percentages, 2021. [cited 2023 Feb 28]. Available from: <https://www.samhsa.gov/data/sites/default/files/reports/rpt39441/NSDUHDetailedTabs2021/NSDUHDetailedTabs2021/NSDUHDetTabsSect2pe2021.htm#tab2.9b>
- <sup>7</sup> Kanny D, Naimi TS, Liu Y, Lu H, Brewer RD. Annual total binge drinks consumed by U.S. adults, 2015. *Am J Prev Med.* 2018;54(4):486-96. PubMed PMID: [29555021](#)
- <sup>8</sup> Centers for Disease Control and Prevention. Alcohol and Public Health: Alcohol-Related Disease Impact. [Table], Annual average for United States 2015–2019 alcohol-attributable deaths due to excessive alcohol use, all ages. [cited 2022 Apr 26]. Available from: [https://ncod.cdc.gov/DPH\\_ARDI/Default/Report.aspx?T=AAM&P=612EF325-9B55-442B-AE0C-789B06E3A8D5&R=C877B524-834A-47D5-964D-158FE519C894&M=DB4DAAC0-C9B3-4F92-91A5-A5781DA85B68&F=&D=](https://ncod.cdc.gov/DPH_ARDI/Default/Report.aspx?T=AAM&P=612EF325-9B55-442B-AE0C-789B06E3A8D5&R=C877B524-834A-47D5-964D-158FE519C894&M=DB4DAAC0-C9B3-4F92-91A5-A5781DA85B68&F=&D=)
- <sup>9</sup> Sacks JJ, Gonzales KR, Bouchery EE, Tomedi LE, Brewer RD. 2010 national and state costs of excessive alcohol consumption. *Am J Prev Med.* 2015;49(5):e73-e79. PubMed PMID: [26477807](#)
- <sup>10</sup> Jones SA, Lueras JM, Nagel BJ. Effects of binge drinking on the developing brain. *Alcohol Res.* 2018;39(1):87-96. PubMed PMID: [30557151](#)
- <sup>11</sup> Hingson RW, Zha W, White AM. Drinking beyond the binge threshold: predictors, consequences, and changes in the U.S. *Am J Prev Med.* 2017;52(6):717-27. PubMed PMID: [28526355](#)
- <sup>12</sup> Patrick ME, Azar B. High-intensity drinking. *Alcohol Res.* 2018;39(1):49-55. PubMed PMID: [30557148](#)

