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Fast Facts

1. More adolescents drink alcohol than smoke cigarettes or use marijuana, combined.¹
2. Forty percent of high school seniors reported drinking some alcohol within the past 30 days.²
3. In addition, 22 percent of high school seniors reported that they had engaged in “binge drinking” in the past two weeks.²
4. Motor vehicle crashes are a leading cause of death for adolescents, and are the most prevalent cause of death for 15- to 24-year-olds. In 2010, about one in five young drivers (ages 16-20) involved in fatal crashes had been driving while alcohol-impaired.^{6,4}
5. Certain groups of adolescents are most at risk for abusing alcohol: males, those who begin drinking at an early age, those who have a family history of alcohol abuse, and those who have experienced exceptional stress.¹

Alcohol Use

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A substantial proportion of high school students consume alcohol, with nearly a quarter of 12th grade students reporting binge drinking in the past two weeks. Drinking alcohol in adolescence is associated with a variety of other risky behaviors, as well as with an increased likelihood of long-term problems reaching into adulthood. This *Adolescent Health Highlight* summarizes key research findings about adolescent alcohol consumption; describes prevalence and trends; illustrates connections between behaviors and health outcomes; and discusses issues specific to particular adolescent populations.

Alcohol: The substance most widely used by adolescents

Alcohol is the substance most widely used by adolescents between 12 and 17 years old—more than cigarettes and marijuana combined. Adolescent drinking is linked with a number of other risky behaviors during this period of life, and with an increased likelihood of serious problems in adulthood.^{3,4}

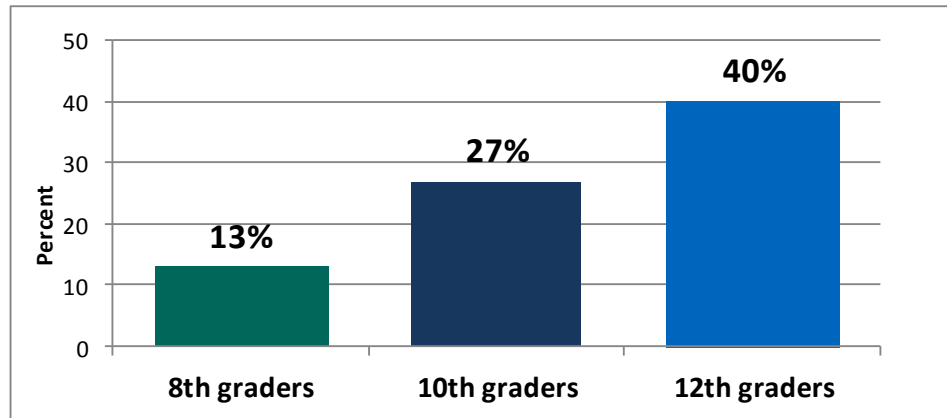
How many adolescents drink alcohol?

Although a minority of adolescents drink, many of those who do began using alcohol in childhood.⁵ Alcohol consumption is measured in different ways: how much, how often, and how recently. The percentage of adolescents who drink any amount of alcohol is high: 13 percent of 8th-graders and 27 percent of 10th-graders reported having drunk some alcohol in the past 30 days; and among 12th graders, about 40 percent (see Figure 1).² For adolescents who drink, “binge drinking” (defined as having five or more drinks within a couple of hours)^{2,4} is particularly harmful. Although the percentage of high school students who binge drink has declined in recent years, as of 2011 about 22 percent of seniors and about 15 percent of 10th-graders reported binge-drinking within the past two weeks (see Figure 2).² The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as having four or more drinks (for females), or five or more drinks (for males) within a couple of hours (reflecting gender differences in how alcohol is metabolized).⁷ However, many surveys still define binge drinking, for both men and women, as consuming 5 or more drinks within a couple of hours.

Implications of alcohol use for health and behavior

Alcohol is considered a toxic substance, and the adolescent brain is particularly vulnerable to its damaging impacts.¹

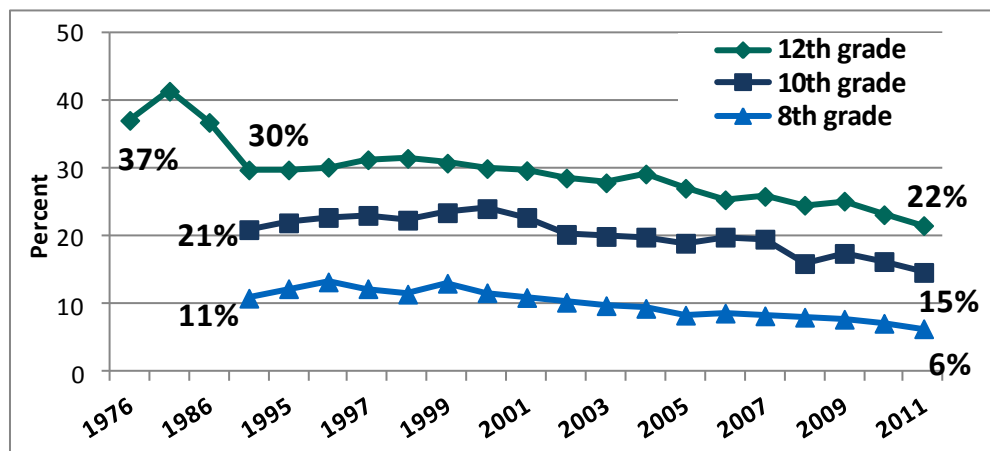
FIGURE 1: Percent of students who have consumed alcohol in the past 30 days, by grade, 2011



Source: Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). *Monitoring the Future: National results on adolescent drug use: Overview of key findings, 2011*. Ann Arbor: Institute for Social Research, The University of Michigan.

Adolescents are less susceptible than adults are to some of the physical effects of intoxication—such as drowsiness, poor coordination, and hangover. However, adolescents are more sensitive to the way that alcohol can affect social interaction—such as by weakening inhibitions. This combination of effects can put adolescents at high risk: it may lead them to drink more without experiencing the symptoms that might curtail their consumption, while the effects promoting social interaction may lead to further risky behavior.⁸

FIGURE 2: Percent of students who report binge drinking, by grade, 1976-2011*



* Binge drinking is defined as having five or more drinks in a row at least once in the prior two-week period. Source: Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). *Monitoring the Future: National results on adolescent drug use: Overview of key findings, 2011*. National Institute on Drug Abuse. Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2003). *Monitoring the Future national survey results on drug use, 1975-2002*. Volume I. Bethesda, MD: National Institute on Drug Abuse. Tables D-54 and D-55.

Research shows that underage drinking is associated with a host of negative consequences for adolescents' health and behavior. These include reduced school attendance and poorer school performance; damaged relationships with parents and peers; problems with concentration and memory; and, of course, alcohol dependence or addiction.⁸ Other risks associated with adolescent drinking include having legal problems (21 is the minimum legal drinking age in all

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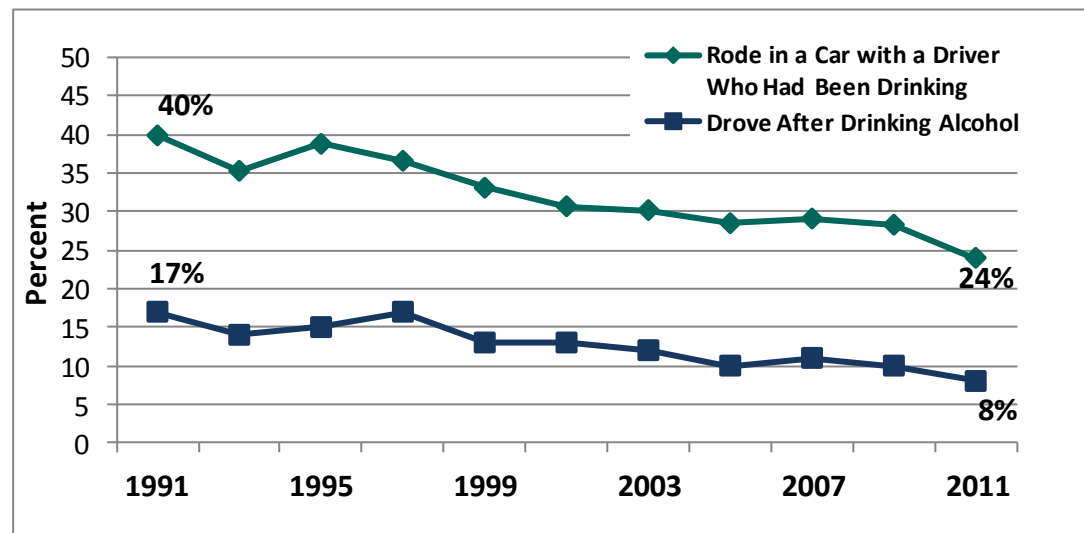
Alcohol is the substance most widely used by adolescents—more widely used than cigarettes and marijuana combined.

Alcohol use increases adolescents' risks of suicide, homicide, and unintentional injuries—particularly those associated with vehicle crashes.

states); becoming a victim or a perpetrator of physical and sexual assault (including dating violence); destroying property; experiencing problems with physical growth and development; and engaging in unprotected sex and having an unwanted pregnancy.^{1,7} Moreover, pregnant adolescents who drink place their developing baby at risk of mental retardation. Finally, alcohol use increases adolescents' risk of suicide, homicide, and unintentional injuries—particularly those associated with vehicle crashes.⁷

Injuries and deaths associated with adolescents' use of alcohol are perhaps the best-known consequences of underage drinking. In fact, motor vehicle crashes are a leading cause of death for adolescents, and in 2010 about one in five young drivers (ages 16-20) involved in fatal crashes had been driving while alcohol-impaired.^{4,6} In 2011, 8 percent of high school students reported driving a car after having consumed alcohol within the last 30 days, and 24 percent rode in a car with a driver who had been drinking (see Figure 3).⁹

FIGURE 3: Percent of students in grades 9-12 who reported driving after drinking alcohol or riding with a driver who had been drinking alcohol, 1991-2011*



*One or more times during the 30 days preceding the survey.

Source: Centers for Disease Control and Prevention. (2012). *Youth Risk Behavior Surveillance Survey - United States, 2011*. Surveillance summaries: MMWR 2011; 61 (4).

Factors that influence alcohol abuse and dependence

Research suggests that the earlier an adolescent starts drinking, the greater the likelihood of alcohol dependence later in life.¹ The general pattern is that alcohol use peaks between the ages of 18 and 20.¹ Evidence also indicates that adolescents whose parents are alcoholics are more likely to start drinking at a young age, to develop drinking problems at an early age, and to become alcoholic adults. The special vulnerability of this group can be attributed to a combination of genetic inheritance (for example, preference for risk taking, increased reactivity to alcohol), growing up in household where alcohol is easy to access and heavy drinking is commonplace, and socializing with peers who also abuse alcohol.¹

As children move into adolescence, they typically experience stress associated with the physiological changes of puberty, new concerns about how they are perceived by peers, and increased academic demands. These circumstances can lead some adolescents to turn to

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alcohol.¹ Adolescents who have had extremely stressful or traumatic experiences, such as abuse, are also at greater risk for problem alcohol use.¹⁰

Peers can also affect whether, and how much, adolescents drink, especially if adolescents' friends are already using alcohol or engaging in other delinquent behavior. Negative peer pressure may be particularly difficult to resist for those adolescents who have not yet developed decision-making abilities that would enable them to resist social pressures to drink.¹

Group differences in alcohol use

For younger adolescents (8th-graders), lower levels of parental education are associated with higher levels of binge drinking, although this relationship does not hold for older students.¹¹ However, some measures of adolescent alcohol use do vary significantly by subgroup. Male adolescents drink more alcohol than do females; they start drinking earlier; drink more frequently; and are more likely to binge.¹ White and Hispanic adolescents drink more than do black adolescents.¹¹ Older adolescents, college students, and young adults in the military are at greater risk for alcohol-related problems than are other adolescents.¹ Students who have plans to complete four or more years of college are less likely to engage in daily drinking or heavy drinking than students who do not have such plans.¹¹

Media promotion of drinking

Adolescents' decisions to drink alcohol are influenced, in part, by direct promotion through the marketing strategies of alcoholic beverage companies, and the way drinking is depicted in movies and television. Adolescents who see more alcohol advertising tend to drink more, as do adolescents who live in areas where advertisers of alcoholic beverages spend more money.¹² Some evidence shows that young adolescents (ages 10-14) who are exposed to more drinking in the movies they watch are more likely to start drinking,¹³ as are young adolescents who own products (such as T-shirts, tote-bags, and caps) that are branded with alcoholic beverage companies' labels.¹⁴

A recent marketing trend that contributes to underage drinking is the promotion of flavored alcohol drinks and caffeinated alcoholic beverages. Both types of drinks can lead adolescents to consume more alcohol than they otherwise would. The mixing of alcohol with caffeine (whether in pre-mixed beverages, or by combining alcohol with "energy drinks")—which is popular among young people—can mask alcohol's depressant effects, leading to binge drinking.¹⁵ In 2011, 9 percent of 8th-graders, 16 percent of 10th-graders, and 23 percent of 12th-graders reporting drinking flavored alcoholic beverages in the past 30 days.²

Preventing underage drinking

As with most efforts to address risky adolescent behaviors, preventing underage drinking calls for a range of strategies that incorporate state-level leadership and policy actions, community coalitions, and restrictions on adolescents' access through working with servers and sellers of alcohol.⁵

State leaders can contribute to these efforts through supporting community mobilization around reducing underage drinking; by raising state alcohol taxes to discourage purchase; and by evaluating the effects of laws and programs intended to discourage underage drinking. Broad-based community coalitions can help provide political will and contribute to changing community norms around the acceptability of adolescent drinking.⁵ Neighborhood and

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community-based strategies for preventing underage drinking focus on limiting the availability and appeal of alcohol through mobilizing the community to get involved, holding merchants accountable for the illegal sale of alcohol to minors, and enforcing alcohol possession laws.^{16,17}

Several school-based programs with classroom and family-based components have demonstrated evidence of effectiveness.¹⁸ Depending on the population, school-based alcohol use prevention efforts may begin as early as the 5th grade. School-based programs often seek to prevent underage drinking by changing attitudes towards alcohol use, increasing awareness of alcohol-promoting media messages, and building skills related to refusing alcohol, as well as broader life skills, such as communication and decision making.¹⁹ Some schools, influenced by efforts to reduce substance use on college campuses, are beginning to designate school grounds and the immediate surrounding area as drug-, tobacco- and alcohol-free zones.

Parents can help to reduce the occurrence of adolescent drinking. As alluded to earlier, certain gene variants have been shown to increase the risk for impulsive behavior and binge drinking. However, evidence from research also shows that positive parenting practices (such as monitoring adolescents' activities, and keeping channels of communication open)—as well as helping adolescents develop their own self-monitoring skills (such as setting goals and planning how to meet them)—can override the influence of these genes.²⁰ Efforts that target family-level risk factors for alcohol use, through family therapy and parental skills-training, have also been found to be effective in steering adolescents away from drinking.²¹ Likewise, restricting adolescents' viewing of R-rated movies, which frequently depict alcohol use, is a simple step that parents can take to reduce the likelihood that their adolescent will use alcohol.²²

Resources

Selected resources on adolescent alcohol use include the following:

- For detailed information on topics such as alcohol consumption and binge drinking, in addition to information on other health indicators for children and adolescents, visit Child Trends' DataBank: <http://www.childtrendsdatbank.org/>.
- ICCUPD's Web site, <http://www.stopalcoholabuse.gov/>, has links to alcohol prevention materials for parents, community organizations and adolescents.
- The National Registry of Evidence-Based Programs and Practices (NREPP) (<http://www.nrepp.samhsa.gov/AdvancedSearch.aspx>) and FindYouthInfo.gov (<http://www.findyouthinfo.org/ProgramSearch.aspx>) provide information about a range of evidence-based alcohol prevention programs for adolescents.
- GirlsHealth.gov, from the Office on Women's Health, has a number of tip sheets for adolescents regarding alcohol use, including "Straight talk about alcohol" and "Ways to say no to alcohol" (<http://www.girlshealth.gov/substance/alcohol/>).
- The Centers for Disease Control and Prevention offers a summary of related data, policies and practices that "work," and tips for parents, health professionals, and teens, in Teen Drinking and Driving: A Dangerous Mix (<http://www.cdc.gov/vitalsigns/TeenDrinkingAndDriving/index.html>)

Restricting adolescents' viewing of R-rated movies is a simple step that parents can take to reduce the likelihood that adolescents will abuse alcohol.

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