

# Marijuana Use Among Students at Institutions of Higher Education

Marijuana is the most frequently used illicit drug in the United States, with approximately 14.8 million Americans over the age of 12 reporting past-month use in 2006.<sup>1</sup> While marijuana use declined in the 1980s, its use among all youth—including college students—rose steadily in the 1990s. Starting in 2000, reports of marijuana use among college students started to level off, with the annual prevalence hovering between 30 percent and 35 percent for several years.<sup>2</sup> Prevention professionals report concern because marijuana may act as a “gateway” drug, serving as an introduction to the “drug scene” and additional types of drug use. In fact, studies have found that “nearly all adolescents who use illicit drugs other than marijuana also used marijuana. The proportions of those who used other illicit drugs prior to (or without any) marijuana use are for the most part less than 5 percent.”<sup>3</sup> Frequent marijuana use may be physically and emotionally harmful and is also associated with a host of other social and behavioral problems, including isolation, poor academic performance, violence, and crime.

## College Use

Monitoring the Future’s annual data on alcohol and other drug use at colleges and universities indicate that the trend of increased then decreased marijuana use holds true among college students. According to these data, annual usage (defined as the prevalence of use in the last year) among college students, which had steadily increased since 1990, had dropped to 30.2 percent in 2006 (see table 1).<sup>2</sup>

### For additional information

#### The Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention

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The Harvard School of Public Health conducted three surveys between 1993 and 1999, examining the drug and alcohol use of 44,265 college students nationwide.<sup>4</sup> The study found that 9 out of 10 students (91 percent) who use marijuana participate in other high-risk activities such as heavy drinking or cigarette smoking.

Core Institute data also suggest that marijuana use is higher among students who engage in other high-risk behaviors. For example, comparing marijuana users with nonusers, 98.7 percent versus 75.4 percent had also used alcohol, 75.7 percent versus 30.2 had used tobacco, 30.5 percent versus 12.5 percent had drunk alcohol the last time they had sexual intercourse, and 13.3 percent versus 0.7 percent used other drugs the last time they had sexual intercourse.<sup>5</sup>

According to the Harvard study, other factors associated with marijuana use include spending more time at parties and socializing with friends, spending less time studying, and perceiving religion and community service as not important. Students at large schools, commuter schools, and coeducational schools were also more likely to use marijuana, while students from historically black colleges and colleges in small or rural towns were less likely to use the drug. Marijuana use was also associated with poorer academic performance. Students who used marijuana were less likely than those who did not use it to study for two or more hours a day and were more likely to have a grade point average of B or less.

## Athletes

In June 2005, the National Collegiate Athletic Association (NCAA) surveyed 19,676 college athletes across the United States. Past surveys had shown a sharp decrease of marijuana use in the late 1980s and early 1990s (see table 2). In a reversal of that trend, 28.4 percent of the athletes surveyed in 1997 reported using marijuana at least once during the previous year. This figure dropped slightly to 28.1 percent in 2001 and dropped again to 20.3 percent in 2005.<sup>6</sup>

The majority of the athletes surveyed had started using marijuana prior to coming to college. Specifically, 65.7 percent of users started in high school, while 11.8 percent started during their first year in college and 6.1 percent after their first year in college. By ethnic group, the highest rate of marijuana use was found among Caucasians, a trend also found among college students in general.

Among athletes, 63.0 percent of marijuana users state that they use marijuana to serve recreational or social purposes, and 30.1 percent say that they use it because it makes them feel good. For those who do not use marijuana, 15.2 percent said that they refrained because they had no desire for the effects created by marijuana, 36.5 percent refrained because they were concerned about their health, and 11.5 percent refrained because it was against their religious or moral beliefs.<sup>6</sup>

**Table 1: Annual Marijuana Usage Among College Students 1996–2006<sup>2</sup>**

Year	Annual Usage
1996	33.1%
1997	31.6%
1998	35.9%
1999	35.2%
2000	34.0%
2001	35.6%
2002	34.7%
2003	33.7%
2004	33.3%
2005	33.3%
2006	30.2%

**Table 2: Annual Marijuana Usage Among College Athletes 1989–2005<sup>6</sup>**

Year	Annual Usage
1989	27.5%
1993	21.4%
1997	28.4%
2001	28.1%
2005	20.3%

## Consequences

Marijuana is seen by some college students as a “recreational” drug that serves as a rite of passage from adolescence into adulthood. Just as with the use of alcohol, this dangerous perception fails to acknowledge the potential dangers of marijuana use. Contrary to popular opinion, marijuana can be addictive.

The use of alcohol and other drugs may be associated with a wide range of negative consequences, such as decreased academic performance, fighting, vandalism, acquaintance rape, and unprotected sex.<sup>7,8</sup> While these consequences are associated with marijuana use, there is no evidence that marijuana use directly causes these behaviors to happen.

The specific effects of marijuana depend upon the type of cannabis used, the way in which it is taken, the setting in which it is used, the expectations of the user, and whether or not it is used in conjunction with other drugs.<sup>9</sup>

Potential short-term effects of marijuana use are as follows:<sup>10</sup>

- feelings of intoxication
- rapid heartbeat
- dry mouth and throat
- bloodshot eyes
- loss of coordination or poor sense of balance
- decreased reaction time
- difficulty in listening or speaking
- impaired or reduced short-term memory
- impaired or reduced comprehension
- impairments in learning and memory, perception, problem solving, and judgment
- altered sense of time
- reduced ability to perform tasks requiring concentration and coordination, such as driving a car
- altered motivation and cognition, making the acquisition of new information difficult
- paranoia
- intense anxiety or panic attacks
- psychological dependence

**Long-term effects.**<sup>11</sup> Because marijuana use is highly associated with cigarette smoking, determining which consequences may be attributed to marijuana use rather than to cigarette use is difficult. While not enough research has been done to determine the specific effects of marijuana, according to the American Council for Drug Education there is growing evidence that it may affect the brain, lungs, heart, and immune system. Marijuana use may

- lead to a decreased ability to concentrate
- lead to a decreased ability to learn and remember things
- delay the onset of puberty in men
- decrease sperm production in men
- disrupt the menstrual cycle and inhibit discharge of eggs from the ovaries
- damage the immune system
- increase cancer rates
- increase rates of respiratory problems and disease

## Implications for Academic Success

Sustained marijuana use may directly affect academic achievement among college students who may experience increasing difficulty in problem solving and poor long-term memory. In 2004, the Office of National Drug Control Policy released an Open Letter to Parents endorsed by the American Academy of Family Physicians and the Partnership for a Drug-Free America, in which they articulated the effects of marijuana use on students’ academic success. According to the letter, frequent marijuana use can affect students’ concentration and ability to retain information.<sup>12</sup> The Substance Abuse and Mental Health Services Administration’s National Household Survey on Drug Abuse found that teenagers’ marijuana use negatively affects grade point average (GPA): in 2005, 17.9 percent of students with a past semester grade average of D or lower used marijuana in the past month compared with 3.1 percent of students with an A average.<sup>13</sup>

Long-term use might also lead to “amotivational syndrome,”<sup>11</sup> in which students are unmotivated to be involved in campus life or to achieve academic, career, and personal goals. Long-term use may also lead to a decreased ability to deal with the stress that often accompanies personal growth and achievement in college. It should be noted, however, that whether or not marijuana use causes this syndrome, leads to it, or is merely associated with it has not yet been determined.

## Other Causes for Concern

While not everyone becomes addicted to marijuana, in 2004 more than 298,000 people entering drug treatment programs reported marijuana as their primary drug of abuse.<sup>14</sup> In addition, withdrawal symptoms from marijuana may cause reactions similar to withdrawal symptoms associated with other drugs such as heroin, cocaine, and alcohol.<sup>15</sup>

Recent research also indicates that marijuana may alter brain chemicals in a way that makes users particularly vulnerable by priming the brain for other drug use.<sup>15</sup> Substance abuse, including marijuana use, is associated with a range of other problems, including violence, HIV infection, and decreased productivity.<sup>15</sup>

National, state, and local-level policies are aimed at reducing the use of drugs among youth in the United States. These include Part 86 of the *Education Department General Administrative Regulations—Drug and Alcohol Abuse Prevention*—which requires that institutions of higher education adopt and implement programs to prevent the unlawful possession, use, or distribution of alcohol and other drugs by school students and employees.<sup>16</sup> The trend toward increased use of marijuana by college students, as well as teenagers, should be recognized as problematic and addressed by institutions of higher education.

## Notes

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# RESOURCES

The Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention ♦ <http://www.higheredcenter.org>

## Office of Safe and Drug-Free Schools (OSDFS)

U.S. Department of Education  
<http://www.ed.gov/osdfs>; 202-245-7896

OSDFS supports efforts to create safe schools, respond to crises, prevent alcohol and other drug abuse, ensure the health and well-being of students, and teach students good character and citizenship. The agency provides financial assistance for drug abuse and violence prevention programs and activities that promote the health and well-being of students in elementary and secondary schools and institutions of higher education.

## The U.S. Department of Education's Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention

<http://www.higheredcenter.org>; 1-800-676-1730; TDD Relay-friendly, Dial 711

The Higher Education Center offers an integrated array of services to help campuses and communities come together to identify problems; assess needs; and plan, implement, and evaluate alcohol and other drug abuse and violence prevention programs. Services include training; technical assistance; publications; support for the Network Addressing Collegiate Alcohol and Other Drug Issues; and evaluation activities. The Higher Education Center's publications are free and can be downloaded from its Web site.

## The Network Addressing Collegiate Alcohol and Other Drug Issues

<http://www.thenetwork.ws>; see Web site for telephone contacts by region

The Network Addressing Collegiate Alcohol and Other Drug Issues (Network) is a national consortium of colleges and universities formed to promote healthy campus environments by addressing issues related to alcohol and other drugs. Developed in 1987 by the U.S. Department of Education, the Network comprises member institutions that voluntarily agree to work toward a set of standards aimed at reducing AOD problems at colleges and universities. It has more than 1,600 members nationwide.

## Other Organizations

### The Core Institute

<http://www.siu.edu/~coreinst>; 618-453-4420

The Core Institute is a federally funded program that assists colleges and universities in alcohol and other drug prevention efforts. The institute offers copies of the Core Alcohol and Drug Survey, a four-page questionnaire designed to be used as a pretest-posttest measure of the effectiveness of campus-based prevention programs. The survey includes questions on academic performance as well as substance use, campus climate, campus violence, beliefs about the effects of alcohol, participation in campus activities, perceptions of group norms, risks involved in using alcohol and other drugs, and secondary effects of drinking. The institute provides technical assistance on survey administration and data analysis and interpretation. The Core Survey is widely used by colleges and universities around the country and was designed to be easily administered. It is statistically reliable and valid. Copies of the Core Survey can be ordered by contacting the institute.

### Monitoring the Future Study

<http://monitoringthefuture.org>; 734-764-8354

Each year since 1975, Monitoring the Future has surveyed a nationwide sample of high school seniors. Since 1991, the project has also included nationwide samples of 8th and 10th grade students. In addition, annual follow-up surveys are mailed to a sample of each graduating class for a number of years after their initial participation. This survey assesses the beliefs, attitudes, and behaviors of young people in the United States. Follow-up survey results are reported for undergraduate students attending college. The Monitoring the Future project is conducted by the University of Michigan's Survey Research Center.

## National Clearinghouse on Alcohol and Drug Information (NCADI)

<http://www.ncadi.samhsa.gov>; 1-800-729-6686; 301-468-2600

The National Clearinghouse for Alcohol and Drug Information (NCADI) is the information service of the Center for Substance Abuse Prevention of the Substance Abuse and Mental Health Services Administration in

the U.S. Department of Health and Human Services. NCADI is a major resource for current information and materials concerning substance abuse. The organization responds to public inquiries regarding alcohol and other drug use, distributes free or low-cost informational, culturally appropriate materials on prevention, intervention, and treatment, and provides access to several alcohol and other drug prevention databases.

## National Collegiate Athletic Association (NCAA)

<http://www.ncaa.org>; 317-917-6222

The National Collegiate Athletic Association is a voluntary association of more than 1,200 institutions, conferences, organizations, and individuals devoted to the administration of college athletics. The organization's aim is to maintain athletics as part of college programs and to ensure that intercollegiate athletic teams and students represent good conduct. The *NCAA Study of Substance Use and Abuse: Habits of College Student-Athletes* has measured the substance use patterns of NCAA college athletes since 1985 and provides NCAA policymakers with trends in athlete substance use, as well as with insight into reasons for drug use and student athlete attitudes toward drug testing.



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## **Our Mission**

The mission of the U.S. Department of Education's Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention is to assist institutions of higher education in developing, implementing, and evaluating alcohol, other drug, and violence prevention policies and programs that will foster students' academic and social development and promote campus and community safety.

## **How We Can Help**

The U.S. Department of Education's Higher Education Center offers an integrated array of services to help people at colleges and universities adopt effective prevention strategies:

- Resources, referrals, and consultations
- Training and professional development activities
- Publication and dissemination of prevention materials
- Assessment, evaluation, and analysis activities
- Web site featuring online resources, news, and information
- Support for The Network Addressing Collegiate Alcohol and Other Drug Issues

## **Get in Touch**

Additional information can be obtained by contacting:

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