

# Prescription Drug Misuse Among College Students



*College students may use prescription drugs in an effort to improve academic performance, induce sleep, reduce pain, increase energy to socialize at parties, or self-medicate for anxiety or depression.*



Misuse of prescription drugs among U.S. college students has become a significant public health concern over the past decade due to substantial increases in its prevalence since the mid-1990s. Rates of prescription drug misuse among college students grew from 8.3 percent in 1996 to 14.6 percent in 2006.<sup>1</sup> This report uses the term *misuse* to describe all nonmedical use of prescription drugs. Since that time, national data suggest that for some classes of prescription drugs, there may be a leveling out or slight reversal of these trends in recent years, while other classes continue to show increases in misuse among college students and college-aged young adults.<sup>2,3</sup> Most notably, there have been slight declines in prescription opioid and tranquilizer misuse among college students, but there has been growth in prescription stimulant misuse.<sup>2,3</sup> Of particular concern, the growth in stimulant misuse has been accompanied by a threefold increase in stimulant-related emergency room (ER) visits among college-aged young adults (aged 18–25) from 2005 to 2010.<sup>4</sup>

Over one quarter (28.1 percent) of college-aged young adults report having misused some type of prescription psychotherapeutic drug at least once in their lifetime.<sup>2</sup> In 2012, 5.3 percent of young adults aged 18–25 reported misuse of prescription drugs in the past month, and 13.7 percent reported misuse in the past year.<sup>2</sup> The most frequently misused prescription drugs among college students are stimulants, pain relievers, and sedatives/tranquilizers.

## ■ **Stimulants: Growing Misuse**

Stimulants are of particular concern among college students due to rising rates of misuse. Adderall® was the most frequently misused prescription drug of any type among college students in 2012, reported by 9.0 percent of college students.<sup>3</sup> Stimulant medications, also referred to as amphetamines, are most often prescribed to treat attention deficit/hyperactivity disorder (ADHD) or narcolepsy (a sleep disorder).

Stimulants include dextroamphetamine (e.g., Dexedrine®), methylphenidate (e.g., Ritalin®, Concerta®), amphetamine-dextroamphetamine (e.g., Adderall®), and dexamethylphenidate (e.g., Focalin®).

Although national data show slight declines in past-year prescription drug misuse overall, amphetamine misuse among college students rose from 5.7 percent in 2008 to 11.1 percent in 2012.<sup>3</sup> Amphetamines were the only illicit drugs with higher rates among college students than their noncollege peers in 2012 (11.1 percent vs. 6.7 percent).<sup>3</sup>

Unfortunately, the increase in misuse of these drugs is paralleled by an increase in adverse health consequences. Stimulant misuse has been linked to heart and blood vessel problems, psychiatric issues, and drug abuse or dependence.<sup>5</sup> When combined with alcohol, stimulants can increase the risk of alcohol poisoning or alcohol-related injuries.<sup>6</sup> The number of ER visits involving ADHD stimulant medications has increased dramatically in the past decade, from 2,131 ER visits in 2005 to 8,148 visits in 2010 among persons aged 18–25.<sup>4</sup>



## ■ *Opioids: High Overdose Risk Despite Slight Drop in Prevalence*

Prescription opioids or pain relievers are narcotic analgesics usually prescribed to treat moderate to severe pain and include hydrocodone (e.g., Vicodin®), oxycodone (e.g., OxyContin®, Percocet®), morphine (e.g., Kadian®, Avinza®), codeine, and related drugs.

Misuse of prescription pain relievers, including opioid narcotics other than heroin, has risen greatly since the mid-1990s; however, slight decreases have been reported among college students in recent years. After reaching a high of 8.7 percent in 2003, the prevalence of prescription pain reliever misuse among college students declined to 5.4 percent by 2012.<sup>3</sup> Vicodin® was used by 3.8 percent of college students (vs. 8.3 percent in the noncollege group), and OxyContin® was used by 1.2 percent of college students (vs. 4.3 percent in the noncollege group).

Despite these encouraging trends, prescription pain reliever misuse continues to be a major public health concern because of its high risk for overdose and addiction. In 2008, 14,800 overdose deaths in the United States involved prescription opioid painkillers, outnumbering deaths from heroin and cocaine combined.<sup>7</sup>

## ■ *Sedatives and Tranquilizers: Less Popular Among Students Than Nonstudents*

*Central nervous system (CNS) depressants*, also called sedatives or tranquilizers, are used for treating anxiety, panic, or sleep disorders.

CNS drugs include benzodiazepines such as diazepam (Valium®), alprazolam (Xanax®), triazolam (Halcion®), and estazolam (ProSom®); non-benzodiazepines such as zolpidem (Ambien®), eszopiclone (Lunesta®), and zalepon (Sonata®); and barbiturates such as mephobarbital (Mebaral®) and phenobarbital (Luminal Sodium®).

Rates of tranquilizer misuse among college students peaked in 2003 (6.9 percent), then declined gradually through 2012 (3.4 percent).<sup>3</sup> College students have had rates of sedative misuse that were lower than or similar to those of their noncollege peers following the peak in 2003. Similarly, rates of sedative misuse among college students hit their highest point since the 1980s in 2004 (4.2 percent) but had declined to 2.2 percent by 2012. College students have had lower rates of sedative misuse than their noncollege peers since data were first available in 1980.<sup>3</sup>

## ■ *Many Reasons for Misuse*

College students may misuse prescription drugs for a host of reasons, including self-medication, social/recreational use, and academic functioning. Reasons often vary by type of prescription drug<sup>8-10</sup>; for example:

- The misuse of stimulants is often fueled by a perception that these drugs can help with academic success via increased alertness, concentration, memory, and cognition.<sup>10</sup>
- College students also report misusing stimulants to enhance their experience of partying and also to enhance the effects of other substances.<sup>8-11</sup>
- The most commonly reported motive for pain reliever misuse among college students is to relieve pain.<sup>12</sup>
- After pain relief, the most common reasons for pain reliever misuse were getting high and experimentation.<sup>8,12</sup>
- College students with depressive symptoms or suicidal thoughts are at increased risk for misusing pain relievers.<sup>9,13</sup>
- Students may also use sedatives and tranquilizers to self-medicate for anxiety issues or to help with sleep.<sup>8,11</sup>

Anxiety disorders are also highly associated with pain reliever misuse.<sup>14</sup>

**Most college students are preparing themselves for future jobs, and many already are working part time. Their drug misuse in college can affect them later in life, when they are working full time.**

## ■ *Legality of Prescription Drugs Gives Some a False Sense of Their Safety*

College students may perceive prescription drugs as safer than illegal or “street” drugs because they are medically sanctioned, are of therapeutic benefit if used correctly, and are available in unadulterated form from pharmaceutical companies. However, there is potential for serious adverse health effects when any drug is used without medical supervision. Many prescription drugs are addictive and, over time, create *tolerance*; that is, increasing amounts are required to generate the same effects. Further, prolonged use of these drugs can result in withdrawal or overdose.<sup>15</sup> Despite their legitimate medical uses when used correctly, prescription drugs are now implicated in the majority of overdose deaths in the United States.<sup>7</sup>

## ■ *Sharing of Drugs Is Common*

College students most often obtain prescription drugs intended for nonmedical use from friends and peers.<sup>16</sup> In one study, more than one-third of college students surveyed had given away or sold a medication at least once. Of these students, two-thirds had diverted ADHD medications, and one-third had diverted prescription analgesics.<sup>17</sup> In another study, more than half of college students with prescriptions for stimulants to treat their ADHD indicated that they are approached each year by their friends to sell, trade, or give away their medications.<sup>18</sup>

## ■ *What Can Be Done?*

The misuse of prescription drugs constitutes a significant public health problem among college students.

Strategies to reduce prescription drug misuse among college students include the following:

- Getting the message out that prescription drug misuse is dangerous, whether for self-medication, academic reasons, or social/recreational use.
- Raising awareness among students with legitimate prescriptions that their diversion is illegal and dangerous.
- Providing opportunities for the safe and secure disposal of unused drugs on college campuses.

**Students with prescriptions to treat ADHD often are approached by others seeking their drugs.**



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